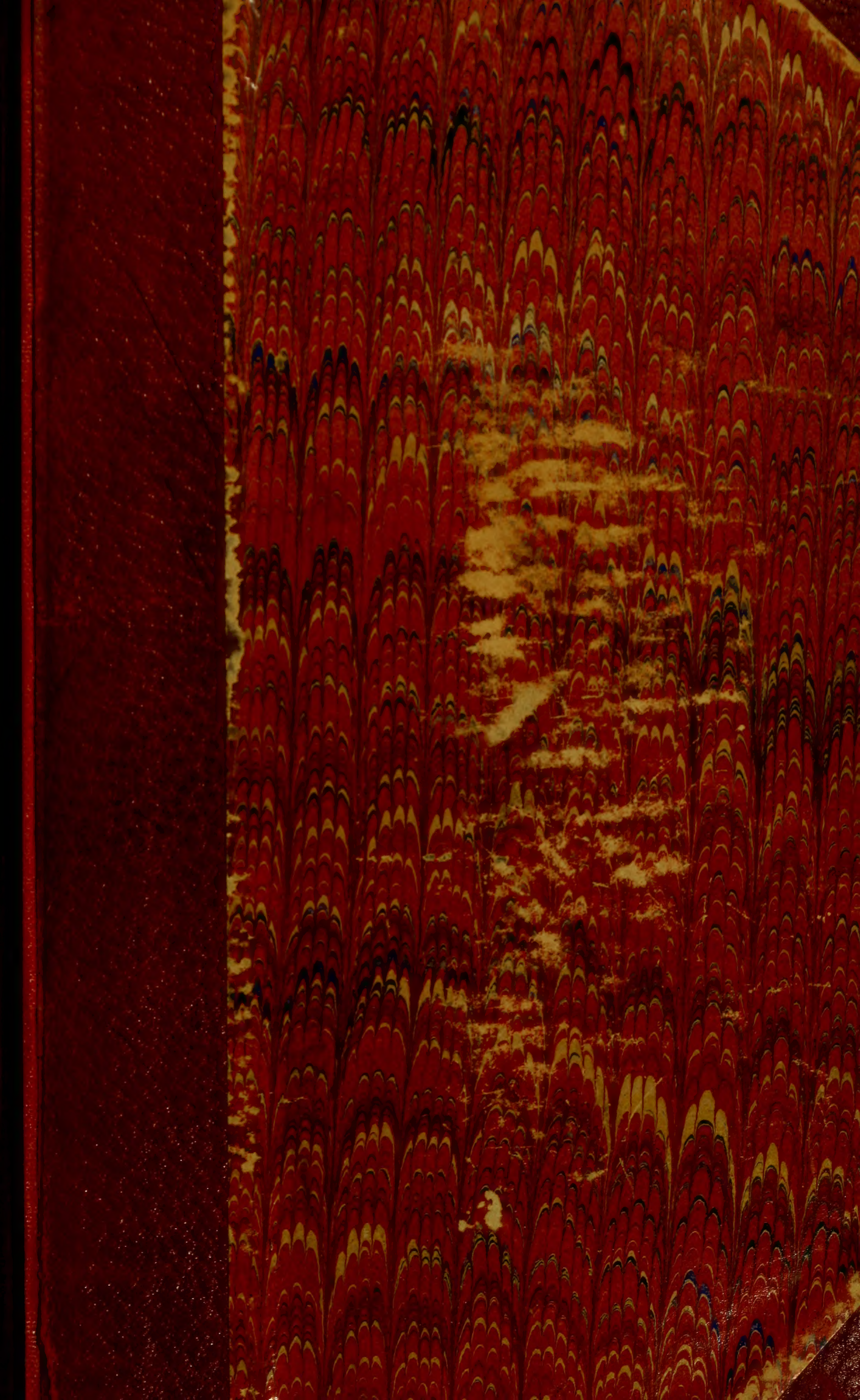




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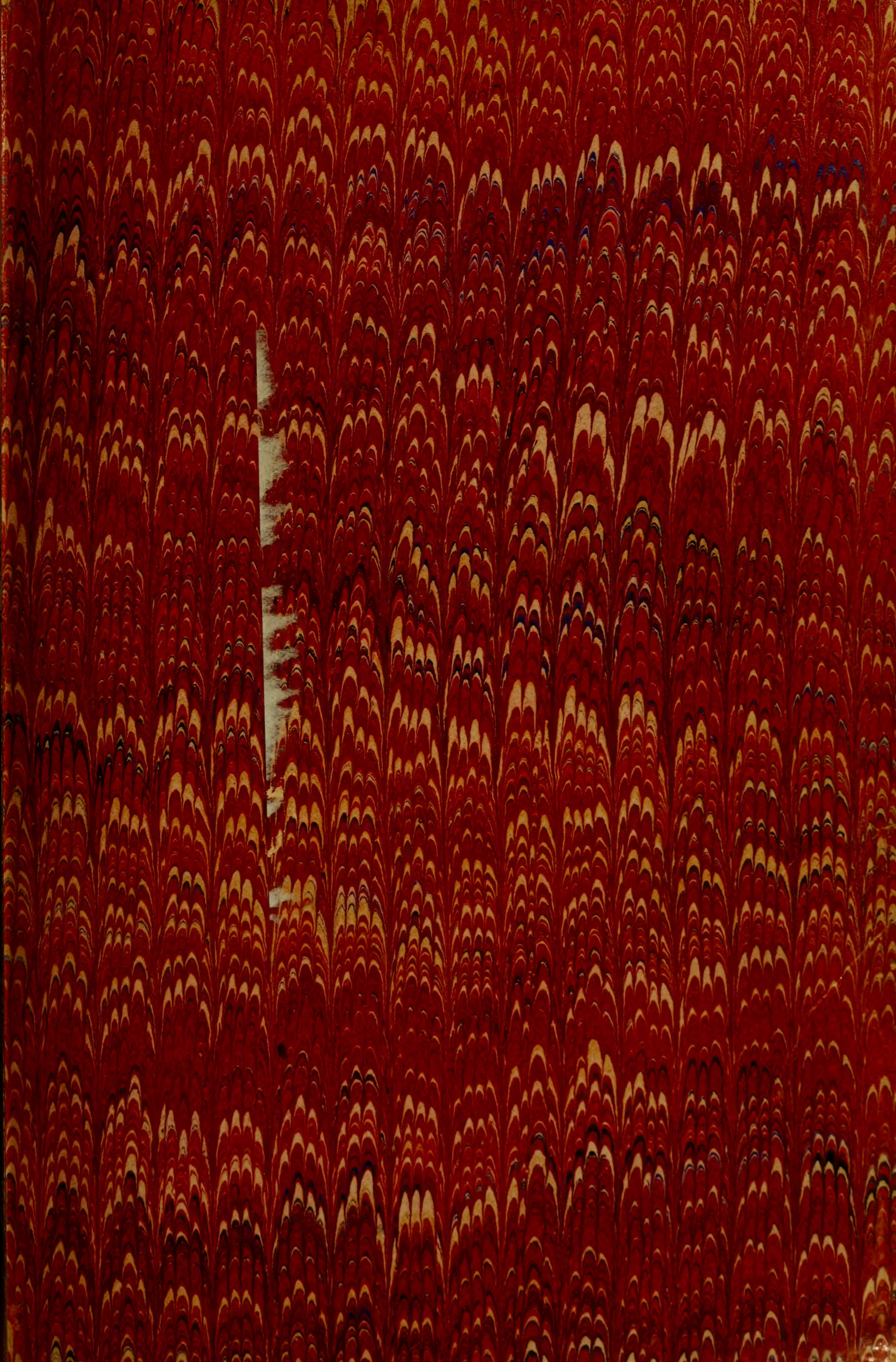
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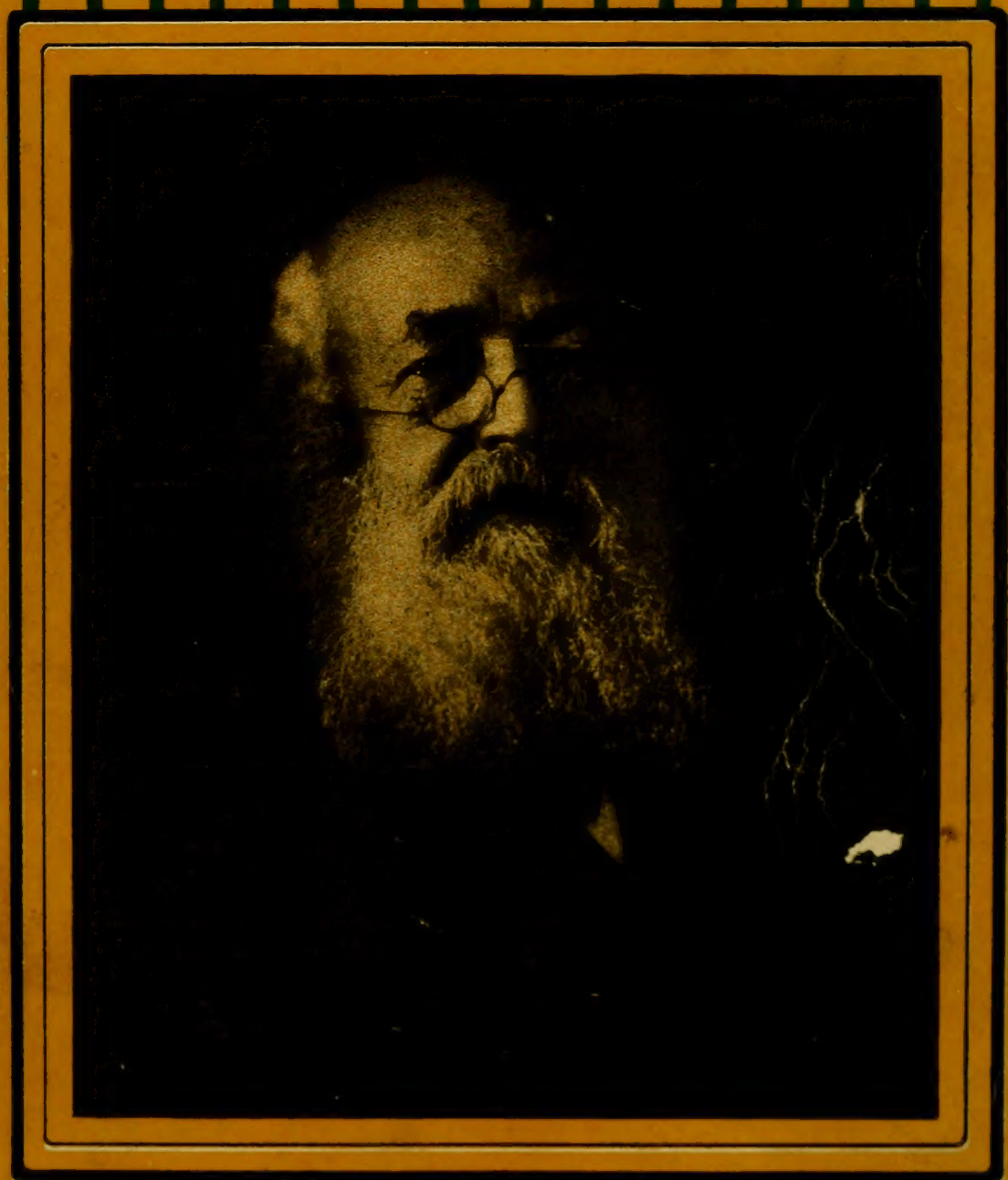
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CAMERA CRAFT



San Francisco, California

PHOTO BY O. H. BOYE

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CAMERA CRAFT

1915 POST STREET

SAN FRANCISCO, CALIFORNIA



THE OLD MILL
By JOHN CHISLETT
Indianapolis Photographic Society

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. XIV.

SAN FRANCISCO, CALIFORNIA, JANUARY, 1907.

No. 1

Through the Ruins With a Premoette

BY LOUIS J. STELLMANN

Illustrated by the Author

When the memorable forty seconds of April 18th were over and the world was once more still, men came and knocked on my door, shouting "Fire!" I was on the sixth floor and, even in the excitement of the moment, I had sense enough to realize that the elevator would be out of commission. Consequently I made haste. Five flights of stairs to descend through smoke and flame with the alternative of a congested fire-escape did not appeal to me.

In one corner, under a mass of broken crockery, a typewriter and an overturned cabinet lay a 4x5 Pony Premo outfit which had recently made an \$80 displacement in my bank account, together with a 5x7 folding box and my wide angle and telescopic lens sets. I thought of them and balanced danger against love of equipment while I slid into my clothes. A whiff of smoke came through the transom. Two men came and kicked in the door. They swore at me lustily.

"Do you want to commit suicide? you — fool!" they inquired.

I gave one more look at the debris in the corner, caught up my coat and, with a groan of renunciation, fled down the stairs.

There I beheld the greatest sight that ever invited a photographer. There is no use describing it. Thousands have done it already, and each in a different way—but anyone with imagination can guess how much I wanted a camera. I knew in a moment what the novelists mean when they say "The iron entered his soul."

After a time the chill of the early morning hit me and I thought of the coat I still carried over my arm. I donned the garment, hurriedly, turned up the collar and put my hands in the pockets. One pocket bulged a little and I pulled forth a small black object with a howl of joy.

It was a Premoette!

I had carried it over to Mill Valley on the day before and the films it

contained were exposed. This dampened my enthusiasm somewhat, but the exigencies of the situation so occupied my mind for a time that I forgot all but the personal safety of some women friends and myself.

The distressful forty-eight hours which followed are of no photographic interest. Having seen my friends in safety to Oakland, I succeeded in re-crossing the bay, after two ineffectual attempts. The third was made possible only through a newspaper photographer's pass from the Adjutant General.



A SILHOUETTE OF BROKEN WALLS AND DEBRIS
AMID WHICH A LILIPUTIAN ARMY LABORED

THE SAFETY STATIONS ON
MARKET STREET OFFERED
THE BEST CAMERA RESTS

AS PICTURESQUE AS
ANY FALLEN TEMPLE OF
ACROPOLIS OR PANTHEON

BATTERY AND MARKET STREETS
SHOWING DONOHUE FOUNTAIN



IN THE HEART OF THE APARTMENT
HOUSE DISTRICT

THE AWFUL SHAMBLES OF A
CITY I HAD LOVED

POSTOFFICE AND GRANT BUILDING
STANDING AMID RUINS

THE FIRST CAR RUN
AFTER THE FIRE

SEVEN SQUARE MILES OF
ARCHITECTURAL RUINS

"A YOUNGSTER — WAS DOING
A LAND OFFICE BUSINESS"

ANOTHER BOY HERO OF THE
TERRIBLE DISASTER

CROWDS LEAVING SAN FRANCISCO
DOWN MARKET STREET

He inquired for my camera. I showed him the lump in my right-hand pocket.

The Adjutant General laughed.

"I've got one myself, or I wouldn't have believed you," he said. "Can't you get anything bigger, though?"

"Everything in Oakland, Berkeley and Alameda is sold or rented but a plate kodak with one holder," I replied, grimly, "and there was just one load for this box for sale in three counties. I got it ten seconds ahead of a man who offered me a dollar a second bonus on the deal."

The Adjutant General signed the pass his clerk had filled out with my name and occupation. "Send me some of the pictures—when you get time," he said as he handed me the slip.

In the meantime the fire had burned itself out. I roamed through the seven square miles of architectural skeletons,—this awful shambles of a city I had loved—and, for a time I forgot to take pictures. Like every other decent-hearted resident, I simply mourned. But, ere long the ruling passion manifested. At Steuart and Market streets stood a ruin picturesque as any fallen temple of Acropolis or Pantheon. I stopped and studied the light. Clouds of dust were adding dimness to a sunlight, filtering, weakly, through a non-actinic opalescent haze of smoke. I had no tripod, and a snap of that black debris seemed a flagrant waste of film. From the mass of bricks that hid the pavement, I constructed a camera stand $4\frac{1}{2}$ feet high and, stooping down to f. 16 I hazarded a bulb exposure as nearly half a second as I could. That was the start. In several places I made these stands and once was almost shot at by a soldier who suspected me of looting, till I showed him my pass and explained. At other points fire plugs, hitching posts and bits of masonry sufficed. The safety stations on Market street offered the best camera rests. At Fifth street I climbed a street railway repair wagon and, from that dizzy height, photographed the first street car to run since the fire, before the ruins of the historic Lincoln school. Turning the camera westward, I snapped, with open lens, a silhouette of broken walls and debris, amid which, like a Liliputian army labored man and beast in tasks of reconstruction. Already the new San Francisco was under way. As I clambered down I saw a youngster, with a transfer wagon loaded with bottles of soda "pop" and a keg of cider. The vehicle was placarded on every side and the lad was doing a "land-office" trade. I stopped for a word with him and learned that, after moving his widowed mother to a place of safety, he had turned the vehicle and a small amount of cash to good advantage. His load exhausted, he hauled passengers to the ferry at twenty-five cents each and secured a fresh stock in Oakland. Then he returned and repeated the performance. So well did he labor that he now has a refreshment stand on Fillmore street, and is making a comfortable living for his mother and self.

Another boy hero of the disaster fell victim to my Premoette. His father was injured while opening his safe, containing valuable papers, and the

boy stood guard over it for two days and a night, until a wagon could be secured to haul it to a safer place. Then he fainted from exhaustion.

Everywhere I met photographers, mostly amateurs. I never saw so many different kinds of cameras in one day. I never had so many chances to sell a \$5 outfit at profits ranging all the way from 200 to 1,000 per cent. I never witnessed so many attempts to secure the photographic impossible as on that day. One man was snapping away in all directions with a shutter that was out of order. When, chatting with him, I observed that his lens stood open, he cried with vexation. He had walked all over the city, not even stopping to eat, and had but one film left. I knew how he felt and attempted no Job's comforting. Another man was shooting right and left with a plate camera containing a film-pack adapter. He was pulling out the black paper on No. 10, when I noticed his slide was still in. I spoke of it. He did not weep, but his language was beyond description. I wasted no sympathy on him. It was getting late and I wanted to see what I had. That night in a friend's kitchen, with a vegetable dish for a tray, two thicknesses of postoffice paper for a light, developer mixed by guess and hypo in a Mason jar, I got twelve negatives that were passing fair. They weren't the best I had made with a Premoette—far from it—and, under ordinary circumstances I might have deemed the trip a failure. But, when I consider the difficulties there were to contend with, it is a very different thing. There are also negative consolations (no pun intended) when I look at some of the other pictures made during those first days—some by professionals with high-grade equipment, I feel more and more glad that the Premoette was in my pocket. And, though I have partially restocked my photographic equipment, the Premoette remains ever close at hand and I cherish it both for memories of what it has done and confidence in what it can do in the future.



YOUNG FLICKERS

By R. H. BEEBE



NEW HAMPSHIRE ROAD
By HANS DUDEN
Indianapolis Photographic Society

The Indianapolis Photographic Society

AS SEEN BY A MEMBER

With Reproductions of Some of the Members' Work, Which Includes Our Frontispiece This Month

For the past twenty years there have been "Camera Clubs" in Indianapolis. They have been launched along nearly every line of camera club organization that has ever been used in any city. Most of them have been born in enthusiasm and started on their way with the blare of trumpets. There have been "popular" camera clubs, scientific camera clubs, school



AUTUMN

By OTTO FULLGRAFF

camera clubs, Y. M. C. A. camera clubs and art camera clubs, but one after another they have disappeared, some by tragic deaths, some by comic, and some as evanescent as the morning dew, melted away, fading into pleasant memories.

Not to go too far into the dark history of ages past, let me briefly state the causes which led to the present organization. A few years ago there was a successful camera organization in connection with the local art so-



LIGHT AND SHADE

By W. A. BASS

AN INVITING PATH

ciety. Some of the best pictorial workers of the city were members of the club and considerable work was accomplished. However, the rooms used by the camera club were occasionally invaded by the artists in other mediums,



AUTUMN AFTERNOON

By HARRY E. BISHOP



MORNING SUNLIGHT
By ALBERT MANFELD



THE HILLSIDE IN SUMMER
By BENJ. W. DOUGLASS



AUTUMN ON THE OLD CANAL
By BENJ. W. DOUGLASS



THE CLAM DIGGER

By JOHN CHISLETT

and as photographic materials have always shown an unfortunate tendency to refuse being meddled with, the relations between the painters and photographers became strained. As a result, the Camera Club of the Art Institute became, like its fellows, a mere memory.

Early in 1906 a few of the veterans of Indianapolis Camera Club work, feeling the need for co-operation in their triumphs or failures, got together and organized the "Indianapolis Photographic Society." They are a mere handful, or rather a double handful, for it would take all the fingers on both hands, including a thumb, to count them. But they **are** enthusiastic and they **can** take pictures—that is, most of them can—one at least, I am sure of, for John Chislett has won for himself almost international distinction. Other members of the Club have notorious records for their greed in gobbling up prizes at local contests. For the sake of versatility the society even numbers among its members one commercial photographer. On account of his professional reputation he won't take a picture unless he can obtain microscopic detail and he even refuses to "print his pictures through the paper"; though it is suspected that somewhere in his heart he has a secret fondness for the "fuzzy-type."

A novel plan of work is to be tried this fall. Each month two localities will be selected, one in the city and one in the country. Each member of the Club will make a picture or a number of pictures of these two localities and then the entire lot will be presented for criticism. The present assignment



THAT OLD BARN
A Precompetitive Effort

By BENJ. W. DOUGLASS

consists of an old barn on a certain road a few miles from town, and the railway station. Some interesting work is promised. The important points about the membership of this society are, that it is small, and congenial. The members are all serious in their work, they are all striving for what they think to be the best, and success inevitably awaits them. Several members will try for the Third American Salon—they may make it and they may not, but there is a lot in trying.

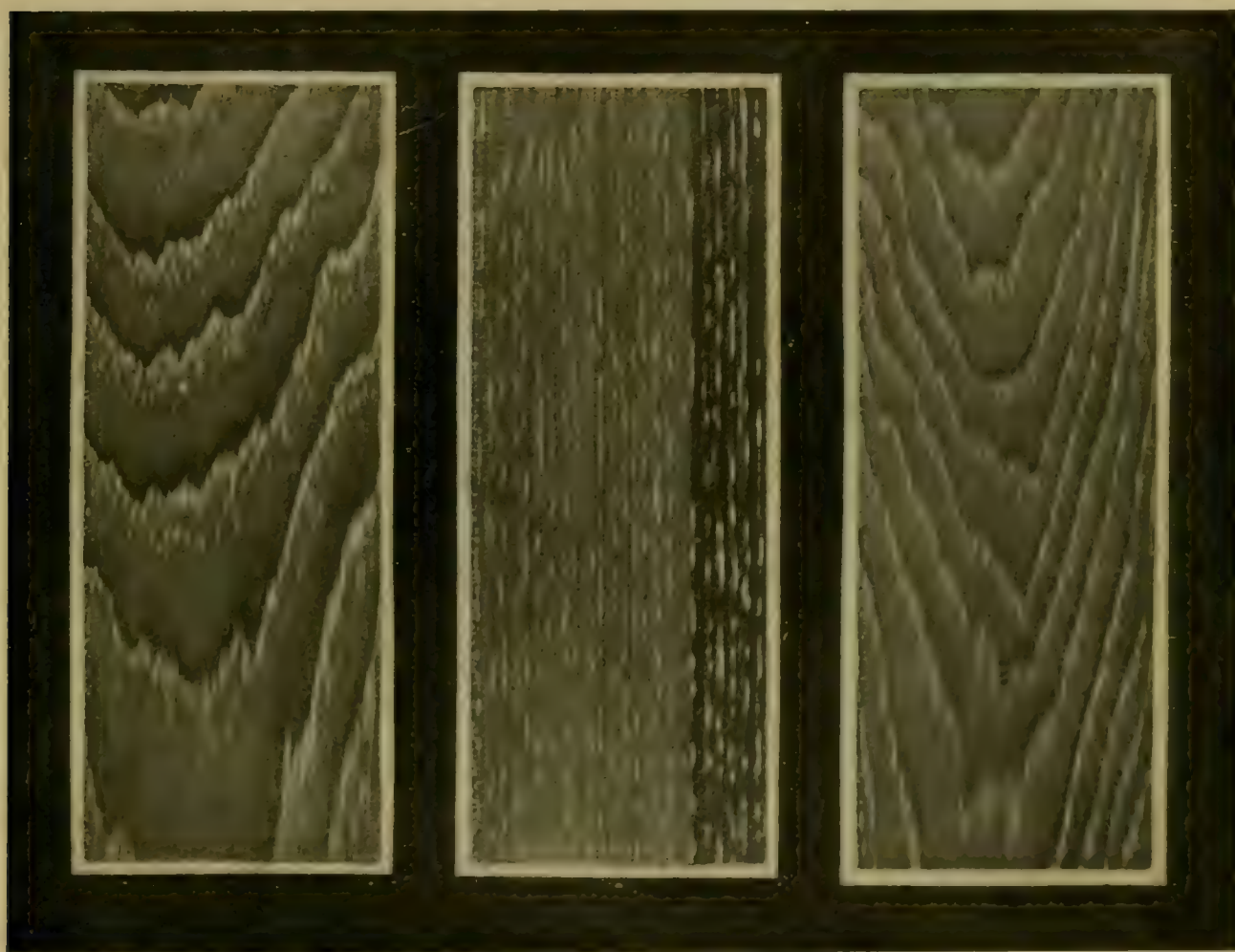
The organization of the society is as simple as possible. There is but one officer, a Czar, Director or President, as they choose to call him, and Mr. Otto Fullgraff is the victim. There are no rules and no regular dues, there is no constitution to suspend in time of trouble, and membership is to be had on one condition only—unanimous election. As one member said, "We are absolutely independent; we don't need any rules because we would do as we please anyhow." The future alone will tell how this novel club will stand the wear and tear of life, but it has made a good, healthy start and to its own members it "looks good."

A young lady who lived in Missouri,
Flew into a terrible fouri,
'Caus her beaux had to chaph
At her last photograph
Though 'twas hung by a Secession jouri.—MORLYN.

A New Method of Photographing the Grain in Wood

By BENJ. W. DOUGLASS

Some time ago I was called upon to prepare a set of pictures showing the grain of wood in about thirty species of Indiana forest trees. I did not remember having seen any pictures of this nature and so set about experimenting with different methods of obtaining the desired result. To make drawings of each specimen would have been difficult and expensive, even if I had been able to secure the service of some one with a particular talent



TANGENTIAL SECTION
SHELLBARK HICKORY
HICORIA OVATA

LONGITUDINAL SECTION
SHELLBARK HICKORY
HICORIA OVATA

TANGENTIAL SECTION
KINGNUT HICKORY
HICORIA LACINIOSA

for that kind of work. I considered various photographic ways of achieving my object and consulted with a professional photographer of my acquaintance who had had some experience in manual training work and who I thought would be able to suggest a way out of the difficulty. He assured me that it was not a hard proposition and that I had simply to prepare the surface of a block of the particular wood that I wanted and photograph it with direct light. This I tried and found that the results did not come up to

my standard or expectations. I found that direct photographs of the wood did not show the grain as well as I desired and also that the degree of finish put on the wood affected the resulting photograph. There was no uniformity in the results.

After I was pretty well discouraged I hit upon a plan that I have since concluded was entirely new, and which my professional friend frankly told me would not succeed. It is a simple plan and one that can be briefly described. It was, simply, to photograph a thin section of the wood by transmitted light. I secured some thin veneers of the various woods that I wanted and rigged up a light frame to hold them in place while being photographed. At first I tried to use direct daylight and found that it was too strong and that it made the resulting negative too hard. This was easily remedied by placing a sheet of ground glass back of the veneer. By placing the frame so that the direct light from a south window fell on the ground glass I found that the grain in the thin veneer stood out strongly. It will be seen that the chief illumination of the wood was by transmitted light, though I so arranged matters that a certain amount of direct light fell on the surface of the wood, thus securing a more perfect picture. The veneer was photographed natural size and the resulting picture was a most excellent representation of the original wood.

The pictures were made natural size and show the grain of the wood perfectly. I used the set of thirty pictures to illustrate an article of mine in the report of the Indiana Board of Forestry for 1905, and they have attracted no little attention from men interested in forestry work all over the country. Before I had any labels on the pictures I showed the entire set to a practical lumber dealer in Indianapolis. He named all of them correctly, except that he could not distinguish between the half-dozen or more different oaks.

To develop the plates I used pyro. After using it for ten years and having tried most of the so-called substitutes, I have about concluded that there **isn't any substitute**—but they say I'm a crank on pyro. The prints were made on Special Portrait Velox.

Formulæ for "Wornoutedness"

By "OLD FORTY"

If, after years of constant work, worry, and close application to the studio and dark room, the photographer finds himself reduced to a bunch of nerves, he should try the following:

No. 1.—A good bucksaw.

No. 2.—A good saw-horse.

No. 3.—A two-and-a-half pound axe.

No. 4.—Half a cord of wood four feet long.

Place a stick of No. 4 on No. 2, and by using No. 1 cut it to stove lengths; these to be split to right size with No. 3. When the No. 4 is all gone you'll find "that tired feeling" has gone some, too. The dose should be repeated until a cure is effected.

The Bread-and-Butter Side of Photography

By L. D. HICKS

An Address Delivered at the Sixth Annual Convention of the Photographers' Association of the Pacific Northwest

An important subject this, for experience has taught me that photographers possess hearty appetites and that it requires much bread and butter to satisfy them. Robin Hood's friends were fond of a song which ran: "It takes nine tailors to make a man." We of the camera fraternity can truly reverse this song and sing: It takes nine men to make a photographer.

If the fairies could roll into one human form a diplomat, a politician, a chemist, a mechanic, a draughtsman, a financier, an expert salesman, a shrewd, level-headed, modern business man, and an artist, the result would prove to be a remarkable and perfect photographer; one whose stock of bread and butter would accumulate to a degree that would start the Rockefellers and Morgans in the direction of the photographic stock house. We haven't any fairies, so which of these nine men shall we choose as our pattern? Give me the diplomat every time. It may be the reception room lady, or in our smaller cities the proprietor himself, but, no matter who it is, the one who receives your prospective sitter, shows him his proofs and takes his money, surely must be more or less of a diplomat or there will not be much bread-and-butter.

All photographers are artists; some of them are realists, some impressionists, and many of them are just naturally poor artists; but that is equally true in the great art world that lies outside the photographic field. The poor ones will improve, or quit, so don't worry about them. The others are coming closer together every day. The impressionists' fuzzytypes grow less fuzzy; the realists' wirytypes grow less wiry and the result gives the world a product that is a portrait and a picture all in one. This helps to spread the butter. But the bread must still come from the reception room. I am glad that Miss Dorris is to talk to you on this point; she can help us all to improve our reception room methods, and I shall leave that matter to her. Mr. Jackson, to whom all skylights bow as all slaves should bow to their master, is to talk to you on the work of the operating room; so let's go back to the bakery.

The photographer is a professional man, but he is also a wholesale and retail dealer in pictures. Do you run your studio on a business basis? Not many of you, I fear. You send to the dry plate manufacturer for a case of plates; he glances at your order and knows to a fraction of a cent not only what the cost of producing that box of plates was, but what each item that goes to make up the whole cost, even down to the labels on the boxes, and he can tell you the exact amount of his profit on that sale. You were by no means a stranger to him when your order arrived, for his card index system had long since claimed your address, and in all probability the little square of cardboard will tell him many other things; how long you have used his

plates, for instance, and, incidentally, how much bread-and-butter you possess. Had you failed to send that order in when you did, doubtless a notice would have come to you in a short space of time from this same source asking why your orders had dropped off, or, better still, the thirsty and travel-worn demonstrator would have called upon you and extolled the mighty virtues of this same dry plate. There's nothing strange about all this; it is simply a modern business house following the even tenor of its way.

Now suppose we reverse the case. We have a call from the factory man. He orders a dozen pictures; we deliver the goods, take his money, and—well, I guess that's all. Do we know how much net profit there was in the sale for us? Probably not. Do we know exactly what the material that went into that dozen pictures cost? I'm afraid not. And, if our factory friend hadn't voluntarily come for the sitting, would we have gone after him either by letter or in person? And, if he doesn't come back next year, will we stir him up? Maybe. But not all of us, I'm afraid. Let me tell you a secret that I heard back East: They say that "some photographers don't keep books." How in the world can they tell where next month's bread and butter is coming from? The happy-go-lucky fellow with a few dollars in his pocket and a stock bill of unknown dimensions hanging over his head may be a photographer, but he is certainly no business man.

A Philadelphia publication recently printed a story, which, if it did not happen to be new, is one that most of us can take home to ourselves. An Episcopalian bishop, while visiting in the country, heard that a certain farmer had long sung the praises of that creed and boasted that he was a mighty good Episcopalian. Naturally this pleased the bishop, and upon meeting the farmer he asked: "Who brought you into our church? Who confirmed you?" "Who what?" inquired the farmer. "I don't know what you're talking about, but this is how it happened: I was in New Orleans one Sunday and went to church as I didn't have anything else to do. While I was there all the folks in the congregation got up and said: 'We have left undone those things which we should have done, and have done those things which we should not have done.' Well, sir, that fitted my case exactly. I asked the man that sat next to me what kind of a church that was, and he said Episcopal, and I've been a good Episcopalian ever since." I wonder what percentage of the membership of this Association this cap fits. Now let's do some of these things that we should do and have left undone.

First, we want to install a simple and practical system for keeping a clear record of our business. This isn't going to cost very much. For one dollar and twenty-five cents you can buy a substantial box, black cloth covered and fitted with a good follow block. This box contains 400 white linen record cards, ruled in colors. It has twenty alphabetical, twelve monthly and thirty-one daily guides. Here one can index his customers and prospects, with their addresses and general information. It is true that four hundred cards won't last the larger galleries very long, but additional cards will only cost us one dollar per thousand, and when the first box is filled one can buy another for sixty cents. Let this set of cards contain all the neces-

sary data in connection with the filing of negatives, the delivery of proofs, as well as the name of every person who has come to your studio in the past two years, and, no matter whether they ordered or not, follow them up. Don't let them forget for a day that you are ready, willing and anxious to make the best pictures they ever had.

A separate box should be used to record the arrival of the new babies that the stork brings to town, and still another for the veterans and pioneers, for all the dear old folks past seventy need your special attention. They are treading the down-hill path of life. The sun will soon set for them, and we must convince them and their loved ones that it is their duty to let us make a permanent portrait of the dear one who hasn't long to stay. Do it now. Go home and get after these folks. If you can't call on them, send somebody. If there's no one to send, write, not once, for one letter of this sort seldom brings results, but follow it up; try at least three times, if necessary, but don't give up until you are convinced that that particular person has no intention of contributing to your "bread-and-butter."

Buy still another box; this one only containing one hundred cards or so, and use it as a record of the cost of the materials that are consumed. Who sells you your supplies? How do you know that you can't save money by buying them from the other fellow? Have you any record of the quotations that the firm in Portland made you last year? Aren't there a great many chemicals that you always buy in ounces, yet use in sufficient quantities to justify purchasing in pounds? Amadol and metol, for instance, list at seventy-five cents an ounce, or ten dollars per pound. Granting that you received the same discount on both size bottles, the saving when buying in pounds is two dollars net. Figure pyro the same way, and you find a clear saving of a dollar and a half. I take an Eastern list as an example. Ounces are quoted at twenty-five cents and pounds at two dollars and fifty cents. Here's "bread-and-butter" for you. Never use cheap chemicals. They are always the most expensive.

Keep books! Simple, plain, single-entry bookkeeping is plenty good enough for most of us. Any bookkeeper or business college graduate will be glad to start you in the right direction for a nominal sum. But know just "where you are at" at the end of each month, and have each day's work recorded in its proper place. Take advantage of your cash discounts, or, better still, pay cash, providing your ready funds will permit. Watch the little things and advertise all the time. How? There are thousands of ways, and they are all good. A famous San Francisco photographer, now dead, used to advertise his business through his fine dogs. People were attracted by the dogs, and remembered and talked about the photographer. A Cleveland man advertises that he is the highest priced photographer in Ohio. A New York photographer said to a newspaper reporter who was an old friend: "Jim, say something about me in that paper of yours. If you don't know anything good, say something bad, but say something." The services of a printing press are as necessary to the success of a modern studio as that of a printing frame.

Make the public think about you all the time; then they can't possibly overlook you when they want pictures. Keep your prices up, keep your stock bills down, and root all the time. Go home and do just one of the many things I have suggested, and the bread-and-butter side of photography will immediately begin to look up.

Transposing Stereo Negatives on Films

By J. WILBUR READ

Recently I worked out a little dodge in transposing stereoscopic negatives made on roll film, that I feel sure will be of interest. The negatives are cut apart, care being taken to see that the cut is made at right angles to the edge of the film. The negatives are then transposed, and the section of the film that inter-



venes between the two negatives is carefully cleaned by scraping the back of one negative and the front of the other. This is done in order that the cement will hold, as it will not act if the celluloid retains its gelatine coating. The two negatives can then be cemented together with the film cement used for mending torn cinematographic films and which can be obtained of dealers in photographic supplies. This cement dries in a minute or two and sticks like a burr. After the two negatives have been cemented together I paste a strip of black paper between them, covering the joint and thereby allowing the prints to be separated by a narrow strip of white which would otherwise be black if the opaque paper strip were dispensed with.

Architectural Photography

By HUGO ERICHSEN, M. D.

With Illustrations Showing Wrong Treatment

Time was when the average architect knew little or nothing of photography, and when the art-science was not the valuable adjunct and aid to his profession that it is now. But since the practice of photography has become more general and all classes of society use the camera, architects have also taken up the "dark art," and use it daily in the practice of their profession. It serves them in various ways. By means of it the progress of a building may be recorded. In fact, as regards large structures, photographs in the course of building are almost an absolute necessity, as they may be introduced as indisputable evidence in case of an action at law, should any contention arise.

Photographs perpetuate the memory of impressions received by the traveling architect. Instead of being obliged to make a laborious sketch, the camera enables the architect to preserve the contours and details of an edifice in a short time, providing him with a method by means of which he may "take" a score of grand buildings in a day, with comparatively little trouble. What architect, about to travel abroad, would now think of leaving his camera at home? The stately palaces of France, the picturesque old houses of Nuremberg, the slender minarets of the Orient and the relics of the past in Rome and Athens, these are all the legitimate spoils of the architect's camera. Nor need he go so far from home to find suitable material, as he may place on record pictorially the colonial mansions of New England or the splendid old adobe missions of California.

In the study of architecture, photography has also been of great service. Ruskin said the greatest service photography could render was the careful reproduction of architecture and its details from the beginning of the twelfth to the end of the fourteenth century. The photographic literature of architecture, if it may be so called, is already large and growing daily. Photography has done as much for architecture as it has for art, as it enables the student to see what distant buildings are like, down to the most minute details and most intricate design, without leaving his home.

An architect about to take up photography will naturally want to know something about the necessary apparatus. Any ordinary camera will do, as long as it has square bellows, a raising and falling front, a swing-back and a rectilinear lens. As for size, an 8x10 box is preferable. A front extension is also desirable. A projecting tail-board is a nuisance in an awkward corner and especially in the way in taking interiors. The swing-back should swing from the center. The use of the raising and falling front explains itself: If the novice looks through the ground-glass and raises and lowers the front board he perceives at once what he can do with it. A doublet lens is indispensable, as a single lens will produce marginal distortion. A single lens may, however, be employed when the center of the field only is used. For photographing buildings in a confined situation recourse must be



Camera not quite level and pointed upward,
without using swingback.



Direct lighting fails to give relief and form.
Otherwise good.

had to a wide-angle lens, but otherwise preference should be given to the rectilinear. In taking tall buildings, the raising of the front board will sometimes prove insufficient and the photographer be compelled to get on higher ground. Generally it will be preferable to photograph a building from the level from which it is ordinarily seen. When a tilting of the camera, either up or down, in taking tall buildings, is unavoidable, the swing-back should be used to correct the distortion that would otherwise appear.

Care should be taken to see that the tripod stands firm. In ecclesiastical structures, where the floor is not infrequently slippery, the tips of the legs may have to be provided with cork to prevent them from giving way. In order to obtain a perfectly horizontal position of the camera, a small weight



Dwarfed by too much weak foreground and
want of side view.



Building lacks solidity, as only one side is
shown. Wrong aspect.

attached to a string may be used as a plumb-line, or a spirit-level had recourse to, but ordinarily the judgment of the eye is quite sufficient in leveling.

A building should never be taken full face, nor with the sun directly in front or behind the camera. A side view and side lighting produce far better effects. As regards exposure, of course, no definite directions can be given, as so much depends upon the light and time of the day and year. An actinometer will be found of service. Wherever a fine carving or tracery exists, as in many old cathedrals, the exposure must be somewhat prolonged in order to lose no details. A longer exposure should also be given when people are continually passing in front of the camera, which frequently occurs in photographing buildings in crowded thoroughfares. Under such circumstances the smallest stops should be used, which will permit of a prolongation of the exposure and at the same time obliterate the passing multitude.

Plates of medium rapidity will give the best results. For development metol is preferable to pyro, in my opinion. The aim should be to reproduce thin, delicate negatives that are full of detail. In printing, too, care must be taken to bring out all the detail. The negative being thin, it naturally follows that the printing should be done in the shade. Sometimes a covering of tissue paper may even be necessary in order to produce a perfect print.



BOAT LANDING, LAKE LUCERNE

BY F. E. MONTAGNE



A MAID OF THE FRONTIER
By LOUIS FLECKENSTEIN
Third American Salon



DECORATIVE PORTRAIT
Third American Salon

By SARA HOLM

The Third American Salon

By WALTER THURSTON

As one inspects the two hundred and seventy-three pictures that make up this, the third of the series of Salons given under the auspices of the American Federation of Photographic Societies, the thought is borne in upon him that the master of manipulative skill, other things being equal, has a decided advantage. Many of the pictures that attract but little attention would claim a much greater share of appreciation had the negatives received the treatment that was their due. Many winning high praise would go unnoticed had the printing been left to the mercy of an unsympathetic medium and the work to hands unskilled in those processes calculated to best present the subject under treatment. Another impression that forces itself upon the observer who has studied the three former exhibitions is one of satisfaction at finding the quality of the work more uniform. This is no doubt due to the fact that the preliminary selection was made by a jury of photographers. The painters, and the final jury was composed of several well known ones, are blind to good photographic quality and prone to applaud a success in some particular direction in which the photographer finds little cause for congratulation. To digress for a moment, I still have a most vivid recollection of the enthusiasm which a painter friend expressed some years ago over a certain photograph in which I could at that time find no single touch of merit. I argued that the composition was all wrong, the spacing lacking in interest, and the subject



SPRING TIME
Third American Salon

By F. BRENDA JOHNSON

weak and hackneyed. He did not contradict me on any of these points. The merit was in another direction; the subject was "enveloped"; it was endowed with a quality that all painters work for and many fail to secure, at least to their satisfaction. It is not hard to understand that a painter with his keen perception for this and other qualities of which the average photographer knows but little and without any great appreciation of some qualities on which the photographer places much value, would naturally surprise the less cultivated critic by his selections.

The Salon was first shown in Toledo, opening January third, coming to Indianapolis, and from here it will go to Chicago, Milwaukee and Minneapolis, possibly visiting San Francisco before returning East. The dates in the East are not as yet fully decided, but the final exhibition will be made in Pittsburg, the latter part of June, after which the pictures will be returned. The three pictures chosen for purchase by the Jury of the Federation are as follows: Decorative Portrait by Sara Holm, Chicago; A Maid of the Frontier, by Louis Fleckenstein, Faribault, Minn., and Capitol by Night, by J. H. Tarbell, Washington, D. C. This is the first year in which the honors have gone to American workers exclusively, despite the fact that foreign countries are well represented this year, the collection containing work from Canada, England, France, India, Ireland, Italy, Scotland and South Africa. It is but natural that the American pictures outnumber the foreign ones. The



THE ROAD FROM TIVOLI
Third American Salon

By WM. H. PHILLIPS

work shown, as a whole, displays an inclination on the part of photographers to avoid extremes of sharp detail on the one hand and excessive fuzzyness on the other. Practically, every printing medium is represented, and no single one can be said to dominate the collection. The major portion of the pictures show evidence of being practically straight photography, that is, without that obtrusive indication of hand work that has characterized many of the pictures shown heretofore. The full advantage has been taken, however, of the wide range of printing surfaces and mediums at the disposal of the worker of today.

The Pacific Coast workers are surprisingly well represented when one remembers that so many of them lost everything in the fire of last spring, and that their time and attention was no doubt very fully occupied for the few weeks following in which prints had to be prepared and sent, even where negatives were available. Adelaide Hanscom, now of Seattle, has two charming little pictures, that, despite their lack of size, were strong and vigorous, "Mother and Child" being exceptionally good in line. Helen Plumel Gatch, of Salem, Oregon, shows three, all up to her usual high standard, "The Wrong Key" being, perhaps, the most noteworthy. Calista Moore, another Salem worker, was represented by a single picture showing great promise. Emily Pitchford, Berkeley, California, a new worker heretofore enjoying the association of Miss Hanscom, who resided in Berkeley before her removal to

Seattle, has four pictures hung, all good and all showing that her work will rank with the best in a keen appreciation of the beauty of line and tone values. Laura Adams Armer, another Berkeley worker, is represented with a striking "Head," and Charles E. Townsend, of Oakland, shows two, not quite up to his former successes. Dr. Gustav Eisen, of San Francisco, has two that are very good, but apparently suffer through lack of care in the making of the prints. Our Pacific Coast workers must not be criticized too closely, as it must be remembered that but few pictures were available, and of those sent a larger proportion passed the jury than did possibly any other



SNOW SHADOWS
Third American Salon

By JOHN CHISLETT

collection forwarded for their consideration, or so it seems, as we had a letter from Mr. Clute at the time saying that he would be sending only about twenty-five pictures in all, this year.

A large number of new names are recorded in the catalogue, and their work is in evidence very strongly upon the walls. Ethel Rector, of Chicago, heretofore unknown as a pictorial worker, except to a few in her own city, is represented by seven frames—all portraits and all full of character. D. H. Brockins, of Chicago, showed strong, vigorous work, as did also Sara Holm, whom we have already mentioned as having a decorative portrait chosen for purchase. She had seven accepted, six of which are portraits in gum-

bichromate, and all are most effective. Variety of treatment characterizes the work, and for that reason it is hard for any two persons to agree upon the most pleasing. Another woman worker to achieve success in the same medium is Eleanor T. Willard, of Grand Rapids. "Net Menders on the Dunes" shows a keen perception of good composition and skill in its rendition. Fedora L. D. Brown, of the same city, has two gum prints, "The Hill,"



STUDY IN CURVES
Third American Salon

By EMILY PITCHFORD

being characterized by heavy masses in red blacks, while the other, "Shadows on the Sand Dunes," is a delicate conception in golden brown, the effect of sunshine upon sand being strikingly portrayed. "Angel of the Darker Drink," by Katherine Brigham, one of her two accepted pictures, is a very strong piece of figure work and one that will be remembered by the visitor to the Salon.

Mrs. G. A. Barton, of Birmingham, England, shows two pictures which have a decided charm, in addition to their exceptional pictorial value, in their

suggestion of the old Italian masters. Another of the foreign women workers is Brenda Johnson, whose "Springtime" is very poetic and full of the feeling and charm of spring. Both in tone and composition the picture is a noteworthy example of the possibility of the camera in the hands of an artist. Of the other foreign workers, and these foreign workers are credited with one hundred and fourteen of the pictures, Guiseppe Castruccio, of Genoa, is represented with seven, sharing the honor of the largest number with Mrs. Holm and Miss Rector, of Chicago. His pictures are all in black and white, and all strong in manner, with a charm of composition that is hard to define. Dr. Eugenio Berta shows two red sunsets that are full of color, possibly a little too much being used. The Italian workers are conspicuously daring in this year's exhibition. In addition to these mentioned, Edoardo Garrone shows three, "La Castellane," being very pleasing. Nino Ferrari has two, "Bridge in Turin," being remarkable for its fine blacks, conveying the impression of an old steel engraving, and Giulio Bompard has decorative effects, treated in green and showing fine masses. Mrs. Caleb Keene, of South Africa, has one of the most effective "story-telling" pictures in the exhibition, "Prospectors' Early Morn."

The most striking work from England, in addition to Mrs. Barton's, is credited to J. C. S. Mummery, James Gale, William Clayden, and Rev. A. R. Champion. Mr. Mummery's "In Winter Time," and "Boxbourne," are strong in their painter-like treatment, the second being the most effective, and both are in dark gray tones. Mr. Gale's "The Black Country Waterway," though small in size, yet has a largeness that is striking. Mr. Clayden's marines are full of life and action, being entirely different from his rendition of Venetian atmosphere of last year. Reverend Champion shows another of his charming church interiors that suggests the busy work of Evans in its atmospheric quality, so hard to secure in this line of work. The melodramatic touch is given to the exhibition by a picture entitled "Peccavi," in the production of which Mr. Liebreich and Mr. Stewart collaborated. The former is credited also with another striking effect, "Saint Elizabeth," and both are excellent examples of good composition and perfect tone values.

D. H. Brookins, of Chicago, has four strong pictures, all full of life, action and effectiveness. "A Rainy Day" is, perhaps, the best and portrays a common scene, but one very hard of realization in a picture. The figure of a woman has been so handled as to dominate the scene, a city street during a rain, and the effect is both clever and strong. Another Chicago worker, S. L. Gates, is represented by six portraits that are even in quality and all good, having the character and life that makes so much for success in that line of work. George C. Elmberger, another Chicago worker, has five. The best and one full of atmosphere and showing consummate skill in the arrangement is "The Gravel Gatherers." Mr. Elmberger is rapidly forging to the front, and in another year we will expect even greater things from him. Still another worker from Chicago and one from whom good pictures are always expected is R. E. Weeks. His "The Birches" is most charming in its realistic portrayal of a bright winter's day. "A Misty Morn on the River" is less assertive, but

the mystery of its masses holds the attention, as a more direct and decided treatment would no doubt fail to do.

Worcester, Massachusetts, is represented by Dwight A. Davis with two pictures, both excellent, but the best thing, "A Study in Three Tones," that was reproduced in the November issue of "Camera Craft." It is very delicate and pleasing in composition, the first quality being one so rarely secured in this class of work. Louis Fleckenstein, Faribault, Minnesota, as usual, is represented by three strong pictures, all different in treatment and showing that worker's versatility. R. D. Bruce, of Pittsburg, shows decorative effects of Pittsburg scenery, and R. L. Sleeth, Jr., has several, "Early Morning" being the most striking. It pictures the haze of early morning in connection with the steam and smoke from factories along the river bank, the whole thrown back and contrasted by the line of an iron bridge across the top of the picture space. Harry W. Minns, of Akron, Ohio, has five, all poetic and elusive to



HAULING IN THE NETS
Third American Salon

By HERBERT BARISTOW

a most delightful degree. One, a portrait, "Helen," is very characteristic of this worker, and his "Victory of the Dawn" is highly commendable. William H. Phillips, of East Liverpool, in the same State, shows a large number, all rich in the well placed masses for which this worker is famous. "The Road from Tivoli" is his best perhaps, but possibly the impression is caused by its being a departure from his usual line of subjects. It is an Italian landscape with peasant figures, and to say that it is a well handled subject is doing scant justice to the success which has been achieved.

Will D. Brodhun, of Wilkesbarre, Pennsylvania, shows four, two of which are striking and out of the ordinary; in fact, "An Unofficial Inspector" depends more upon its originality of treatment than it does upon its artistic value for its effectiveness. "Why the Errand was Delayed" is in the same vein, and the best of the four. Edward F. Ryman, of the same city, also has four, his "Old Salt" being quite refreshing in its peculiar style of composi-

tion, although successful in spite of its eccentricity. All four of his studies are full of unbroken sunlight, and despite the fact, planes are made to hold their places and atmosphere is preserved. Winfield Scott Cline, of Washington, is represented with five, all of them being tree studies, and one in multiple gum is, perhaps, the most pleasing thing so far seen in more than one color at our exhibitions. Strong masses and decorative effects characterize this worker's pictures, "Evening" being particularly pleasing. J. H. Tarbell, another Washington worker, is credited with six, his "Capitol at Night," of course, being his best. An appreciation of tone values and luminous shadows marks Mr. Tarbell's work, and his lines and masses are always well handled.

William H. Zerbe, of Richmond Hill, New York, is represented with five pictures, all showing painter-like treatment. "The Dawn of Day" is, perhaps, the best, although the entire five are very good in composition and attractive as to subject. William T. Knox, of New York, has a green carbon, a woodland interior, that is far superior to average in selection and treatment. Another New York worker, James E. Underhill, has two, his "Old Bermudan Home" being a good architectural study, with the additional charm of what seems to be a fine rendition of tropical moonlight. Two Brooklyn workers show particularly good things. James W. Kent, with two, of which "Playing Cat" is the best, and W. E. McNaughton, with a like number, both the latter being decorative-landscapes in a short, low toned scale. John W. Rumsey is credited with four, but the only striking one is his "The Quay, Amsterdam," which is effective not only by its good lines but on account of its close resemblance to an old wood cut. The remaining three are good, but less original in treatment.

Portland, Maine, is represented by noteworthy things by two workers, J. R. Peterson and S. S. Skolfield. The former shows two fine wave studies, and the latter four very different as to treatment and subject. "Wind Swept Dunes" is perhaps his best, although "Willows" has much merit. "The Promenade," by F. M. Tuckerman, of Chicago, is the best of the two with which that careful worker is represented. The curved lines of the composition are very effective, being broken at apparently the right places by trees and figures that indicate a keen perception of good composition. J. H. Field, of Berlin, Wisconsin, shows three, "Feeding the Goldfish" being particularly pleasing on account of its naturalness and the careful handling of the high lights. With the Pittsburg worker, Mr. Sleeth, I should have mentioned three others: R. D. Brue and H. W. Walbridge, of East End, and W. McG. White, of Allegheny, showing five, two and one picture respectively, all good work, and showing artistic ability. Many other workers should have mention here, but space does not permit of a detailed notice. For example John Chislett's work received considerable praise in the outlined report sent to the various magazines for publication, his "Snow Shadows" being characterized as "marvelously brilliant and colorful," with other praise of a like character. Another of his five, "Wading the Stream," seems to have pleased the critic, as it is given several lines of very favorable comment.

The Demonstrator Talks

By CHARLES S. OGILVIE

Tank Development



THE SUNDAY SUPPLEMENT By INA L. COOK

GETTING off at a little station in Arizona, I located a worker who was doing a remarkably fine line of work and doing it in the most improved manner. Furthermore, he was doing it in the most simple, matter-of-fact way. It seemed that he had taken up photography through seeing how easy it was done by one of the regular visitors to the annual Snake Dance of the Navajos—Fred I. Monsen. Mr. Monsen, in addition to being an excellent photographer and one of the best lantern slide colorists in this country, is a lecturer who is held in the highest esteem by scientific bodies and the like. The success of his lecturing tours depends upon the results of his photographic work, and for that rea-

son he runs no risk that he can avoid. He uses a firm camera and develops all his exposures in the Kodak Developing Tank. But I am getting ahead of my story. When Mr. Monsen started to visit the Indian country a number of years ago he had to use an 11x14 camera and a battery of lenses, and my Arizona friend was duly impressed with the great effort and skill required to secure good photographic records. Later he found Mr. Monsen using a smaller instrument and for the last three years an ordinary pocket kodak, and he began to think he could make a few photographs himself. When he learned that his former idol of the 11x14 camera was wedded to a pocket kodak and a developing tank and could multiply reasons why they were more satisfactory and reliable, he secured an outfit and has enjoyed photography himself. A large camera and talk about a dark-room simply suggests to his mind that the user is old-fashioned in his ideas and has failed to keep up with the times. His own work certainly discounts anything that could be done with large plates and dark-room developing with the class of subjects which he secures.

A Platinum Revival

There seems to be more and more platinum paper used each year, despite the fact that some makers have had to increase their prices. Much of this popularity is due to the excellence of the Angelo Sepia Platinum

that has the great advantage of developing in a cold bath, thus obviating the necessity of heating the solution for each batch of prints. Development in the cold bath is not instantaneous, thus affording greater control and better gradation. Even under the most trying conditions there is no tendency to solarization or smoky shadows. The prints come out of the clearing bath clean and brilliant with a long range of gradation from highest light to deepest shadows. The Angelo black-and-white papers that have been recently introduced possess all the good qualities of the Sepia paper, and they are destined to meet with a most hearty reception from exacting and discriminating users of the best in photographic material.

Some Effective Mounts

A professional, in the west end of town, is turning out a very distinctive and effective folder and doing all the work in the spare time of his assistants. The whole secret lies in the use of one of these simple little instruments called an Ingento Embossing Tool. If he wants an oval-sunk center all that is needed is a form such as is used for trimming prints, and one sweep of the tool completes the job. Forms cut from cardboard answer as well as the metal ones and any size or shaped depression can be made. The thickness of the form determines the amount of relief secured in the border or if a raised center is desired it is only necessary to reverse the mount in the process. Quite thick mounting paper can be operated upon and where a metal form is used, up to sixteen-ply board can be worked. Ovals, circles and parallelograms are all as easily made and the latter can be made with square or rounded corners, depending entirely upon the shape given the form. It is just the thing for the amateur who appreciates the advantages of trimming his prints according to their individual requirements as a form can be cut for each one if necessary, the work requiring but two cuts of a pair of scissors, supposing that the corner of a piece of board is used. The tool is simplicity itself, both in construction and in its method of use. It consists of a half-inch hardened steel ball revolving in a ball-bearing socket in the end of a polished hardwood handle. They cost only seventy-five cents and can be ordered through any dealer carrying Burke & James line of specialties.

Using Thin Mounts

But I got away from my subject. This photographer was mounting Sepia prints on a thin-laid material of a delicate buff color and with a deckle edge. The least indication of curl or cockling would have spoiled the whole effect. Kodak Dry Mounting Tissue made that part of the work easy. It is really astonishing the efficiency of this material for folders, multiple mounting or any sort of work that involves the use of paper inclined to curl or warp. Once it is given a trial by a worker he does not return to his former unsatisfactory methods. Even where one desires to fasten the print along one edge, a strip of the tissue is more satisfactory than the use of glue or common paste, as both are inclined to warp or wrinkle thin mounting stock.

Some Excellent Reading Matter

Of course the editor would not pardon me should I jot down a heading like the above without mentioning "Camera Craft;" in fact, the magazine at once came into my mind as I wrote the caption, but I have been looking over some excellent, well-illustrated booklets that the dealers are distributing, and I would advise every camera user in the land to secure a set. If your dealer does not have them, drop a line direct to the Eastman Kodak Company and they will be forthcoming. They are, of course, designed to further the interest in the products of this company, but despite that fact they are good, practical, up-to-the-minute handbooks that are worth dollars to any photographer, be he amateur or professional. "The Velox Book" explains most thoroughly the working of this popular paper and suggests methods of masking and double printing that are invaluable. Special attention is given to the toning of gas-light papers by simple and trustworthy formulas, and a glossary at the end of the book explains every phase in the manipulation of these papers. "Bromide Enlarging with a Kodak" is a revelation to all who are not aware of the ease with which the ordinary kodak can be manipulated as an enlarging apparatus at a trifling cost covering an almost crude bit of carpenter work well within the capabilities of an intelligent youngster. The book is clearly written and illustrated with all needed diagrams, in addition to which the various grades of bromide papers are fully described and full instructions given for their working. "Kodak Home Portraiture" is the most pretentious of the three. It is most artistically illustrated with fine examples of home portraiture produced with the ordinary kodak, and replete with instructions and suggestions for making like work. It is a book that should prove an inspiration to the worker who has felt that good portraiture was a matter of expensive apparatus and great skill. Ask your dealer about these books at once, as his supply will not want for appreciation, and as they are furnished without cost you can realize what will happen.

The Photographers' Association of California Hold an Enthusiastic Meeting and Elect New Officers

THE SECRETARY'S REPORT IN FULL

A called meeting of the Photographers' Association of California was held January 21, 1907, at 2518 Howard street, San Francisco, President Terkelson coming from Sacramento to preside.

Minutes of meeting held May 31, 1906, were read and approved. No meetings had been held in the interim because of unsettled conditions, but the large attendance and the enthusiasm displayed by those present at the last meeting points conclusively to resumption of the regular meetings and their increased helpfulness and instructiveness. Various letters were read, and as they had been given attention by the Secretary were ordered placed on file.

The Relief Committee made its final report and was discharged with a

hearty vote of thanks and many expressions of approval for their untiring and well directed efforts. Acting Treasurer Wilton read his report showing good balance on hand of the regular funds of the Association. As the By-Laws call for an election in October and none had been held, it was moved, seconded and carried that they be suspended for the evening, and a committee was appointed by the Chair to nominate officers for the ensuing year, composed of L. D. Hicks, Max Shirpser and R. P. Whigham.

On motion of Mr. Boye, all dues were remitted until further notice. The nominating committee requiring time to canvas the situation, a ten minute recess was taken. Following, Mr. Whigham gave a digest of present conditions existing with the portrait photographers, showing that those who have been fortunate enough to resume are quite prosperous. George H. Knight spoke for the commercial photographers, and reported the situation as being very encouraging for excellent business for several years to come, owing to the demand for work covering reconstruction activities. Mr. Hicks gave a resume of the good business enjoyed by the manufacturers of the country, citing the large increase in the output of several of the larger manufacturers for the year just passed. All these talks were extremely interesting, giving as they did an insight into the present outlook for photography and its status since the fire of last April.

Enjoyable talks were given by Mr. Darnell, of Mazatlan, Mexico, and J. C. Shinkle, of Woodland, California. Mr. Shinkle dwelled on the importance to the photographers of the smaller cities of membership in the Association, and told of the advantages which he had derived from membership and the good effect of the membership certificate upon his own business. Jacob Fowzer made some very pertinent remarks upon several topics of vital importance to photographers and the Association, touching particularly upon the danger threatened by the invasion of the professional photographers' field by the Japanese. A committee was appointed to investigate this last matter and report at the next meeting. J. R. O'Connor, W. H. Smythe, A. J. G. Bennett, Jacob Fowzer, G. Moulin and George Knight being selected.

The election was then proceeded with, resulting as follows: President, E. J. McCullagh. Vice-Presidents, George H. Knight, San Francisco; C. F. Kohler, Los Angeles; J. C. Shinkle, Woodland, and J. H. Hogan, Oroville. Secretary, Fayette J. Clute. Treasurer, Paul Lotz. Sergeant-at-Arms, C. J. Wall. A director is to be appointed by the new President, and the office of Assistant Secretary, formerly held by Mr. Clute, was abolished. The new officers present assumed charge of their respective posts after making promises of good behavior and energetic effort, in more or less telling words. Impromptu remarks by several present followed, urging an aggressive policy in bringing the Association at once to its former high standing and increasing its efficiency in every way possible. It was suggested that the manufacturers be requested to assist in the rehabilitation of the permanent quarters of the Association, and the Secretary was instructed to advise them of the appreciation which any action on their part in that direction would receive. The meeting was then adjourned to meet again at the call of the Chair.

January 21, 1907.

E. J. McCULLAGH, Secretary.

CAMERA CRAFT

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FAYETTE J. CLUTE, Editor and Proprietor

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No. 1

The California Association Again in Evidence

The Photographers' Association of California held a most enthusiastic meeting on January 21st, a detailed report of which will be found on another page. Everything points to an even greater interest in Association matters than heretofore, and the prospects for a rousing, ringing success in the way of a convention this Fall are most promising. The new officers were selected with an eye to their efficiency in the matter of "doing things," and the members feel confident that another year will find the California Association the strongest of the State associations.

In All Seriousness

The insertion of a few want advertisements in our editorial department last month seemed to have drawn considerable attention, and for that reason we will insert a few "Answers to Correspondents" here in this issue. One or two neglected to give full name and address and others failed to enclose a coupon properly filled out, but this will be overlooked for this time only.

OBSCURE AMERICAN JOURNAL.—The publication thus described on page 2 of the January 1st issue of "The Amateur Photographer," (British) is presumably the one gotten out by a gentleman in Philadelphia, who, having his own printing office, is able to gratify his ambition in the matter of publishing a photographic magazine.

ENGLISH PHOTOGRAPHIC MAGAZINES.—It is not necessary for you to subscribe for the "Amateur Photographer" and the "British Journal of Photography," at least, not for the London editions. Some of our American photographic magazines reprint almost their entire contents with the exception of the reports of meetings and the like; in fact, one of them reprints, in its January issue, seven articles from one and four from the other of the two magazines you mention.

PAY FOR PHOTOGRAPHS.—There is no photographic magazine in this country that pays for the privilege of reproducing photographs. The "ONLY" one that did offer to do so made the rather startling announcement, but a week before it discontinued using reproductions of photographs, except stock cuts, portraits of convention officers, and the like.

SUITABLE POSES.—You are certainly in error in supposing that the portraits shown as frontispieces in some of the photographic magazines are

invariably those of more or less prominent editors, when such are of male figures, and that the poses are applicable only to editors and associate editors. While rather theatrical, they will be found suitable for other prominent personages, particularly such as are new at the business.

Pictures at the "Royal" and the "Salon"

We neglected to advise concerning the fate of the pictures which were sent from this office to London to be submitted to the two principal exhibitions held there each year; the Salon of the Linked Ring and the exhibition under the auspices of the Royal Photographic Society. Adalaide Hanscom was fortunate enough to have two accepted at the Royal and one at the Salon, Emily Pitchford had one accepted at the Royal and Hana Robinson was equally fortunate. About a dozen different contributors to the collection sent were honored with a reproduction of one of their pictures in that handsome annual, "Photograms of the Year" and as is the custom, received a copy of the book from the publishers, Messrs. Dawbarn & Ward, London. In consoling ourselves at the limited number of pictures accepted we must remember that but few were sent and they were gotten together at the last moment. Our workers were also but poorly prepared so soon after the fire of last Spring to do more than send rather unfinished productions. In addition to this, it must be borne in mind that both of these shows call out thousands of prints where but a few hundred can be accepted. It is hoped that our Pacific Coast workers will be prepared to send a better and larger collection this Fall, as the expense is but slight and the opportunity of achieving a gratifying honor well worth the trifling trouble.

"Reconstruction—San Francisco"

The above is the title of a beautifully illustrated and handsomely printed folder that is gotten out monthly by the Santa Fe Railway Company, 673 Market street, San Francisco, Cal. We give an extract from the latest issue on another page, omitting the concluding portion showing the high wages paid in all lines of work and other information of a like importance, for want of space. This folder should be in the hands of every person interested in the wonderful progress being made in the reconstruction of San Francisco, and the Santa Fe people deserve great credit for the active part they are taking by giving the widest publicity possible to a clear statement of the actual conditions. They are mailing them throughout the East by thousands. Call or write for a copy and send it to your Eastern friends.

Mr. Withers With Hirsch & Kaiser

George Withers, long with a Market-street house, and after the fire with a leading firm in Oakland, ever popular on account of his courteous manner and thorough familiarity with photographic lines, is now with Hirsch & Kaiser. His wide circle of friends will join us in congratulating both this popular firm and their customers as well on the acquisition of so able a co-worker to their already most efficient staff.

The Amateur and His Troubles

By FAYETTE J. CLUTE

A Profitable Plan

One of our subscribers writes us of a scheme he has adopted for obtaining many a good order from negatives which would otherwise be an expense instead of a source of profit to be diverted toward making his hobby more than self-supporting. The main points are applicable to almost any line of work though his particular opportunities may not be open to some less fortunate readers. All Summer he lives on a yacht and is continually on the lookout for a good marine picture and especially for a pleasing one of each particular yacht, something which is so difficult to obtain on account of the generally prevailing conditions over which the photographer has no control. During the Fall and Winter he gets off, at his leisure, one or two prints from each of the good negatives and to the owner of the yacht mails one with the prices, as given below, stamped in red ink across its face in such a position as to destroy it for any other purpose than as a sample of what he is prepared to deliver. The rubber stamp reads as follows, except that his name and address are added at the bottom.

Negative No.....

MOUNTED PRINTS.

3¼x4¼.....\$1.50 per doz.

5 x7 3.00 per doz.

8 x10 6.00 per doz.

Various-sized Enlargements.

19x24\$7.50 each

His favorite camera for this class of work is a 3¼x4¼ Auto-Graflex, and as he does all of his own work he makes the negative thin and sharp and finds it about as easy to make 5x7 or 8x10 enlargements as it is to make contact prints. While many of the yacht owners are also owners of cameras he finds that they have made many unsuccessful attempts to get a good picture of their own boat, and some of them are willing to give fancy prices for one that pleases them. His photographic failures are, of course, many, for

this class of work is anything but easy, but of these no one ever hears, and as it is only the good ones that are submitted the percentage of resulting orders is large. This idea of submitting by mail unsolicited proofs on a gaslight paper which tell the whole story and which are also destroyed so far as the recipient is concerned, could easily be applied to many lines of work. Automobile parties, riders and drivers snapped amid some pleasing scene in the park, are both of a class to whom a few dollars mean very little and the owner of a horse, dog or any other pet would gladly part with the price of many a box of plates or gross of paper for a picture of his favorite. Of course the opportunities must be recognized and grasped on the spur of the moment and the plan is not held out as a fortune maker, but if watched and acted upon with a fair amount of intelligence it will go a long way toward making the average amateur photography self-supporting.

Making Portraits

During the last month I have received a surprising number of portraits for criticism and advice. While the examples of various workers' productions have demanded specific criticism there are a few faults so common to them all that I will mention them here with the hope that others may be warned before sending me examples that necessitate my repeating the advice continually. Of course I am pleased to be of assistance if possible, but twenty long letters take a lot of time and help only twenty of my friends. A note here may reach hundreds that will profit by the same bit of advice. The point is this: The face and body of the sitter should be at different angles when a portrait is attempted. In other words, if the sitter is seated squarely in a chair facing directly towards the camera the head and face should be turned to the side and if you wish the sitter to look directly at the camera, place the chair so that the body

will be turned to the side somewhat. There is a reason for this, in fact, two. The first is one given by a very prolific writer in the trade journals who says that it breaks up the lines and gives a balanced feeling to the result. The most important reason is that it gives animation to the pose. We associate the turned head with interest and attention. If a person is looking idly about, the body is turned to secure a new view, or more commonly, the uninterested or preoccupied person looks straight ahead. Let the attention be secured other than directly in front and the head turns in advance of the body, in fact, to turn the head and body at the same time is to give a good imitation of a man suffering with a boil on the back of his neck. Of course this rule as to having the face and body at different angles is not a hard and fast one, but it is one that can safely be followed in almost every case. Where animation is not wanted or where some strong emotion is represented; otherwise it is, of course, unnecessary to resort to this method.

Rule for Mounting Stereoscopic Views

Stereoscopic slides cannot give a true stereoscopic effect unless they are observed under the same conditions of convergency as those which prevailed when the exposures were made, and the true effect cannot be secured unless the views are mounted with the proper degree of separation and observed from the proper distance. If the two negatives are on one plate, as is usual in most cases, and are produced with lenses a known distance apart, it is quite easy to ascertain the proper mounting separation for the positives. The complete rule for a lenticular stereoscope is as follows: Add the separation between the two lenses (center to center) to the distance separating the eyes of the observer and then deduct the distance between any two corresponding points on the two negatives. The result is the proper separation of the same two points in the positive prints. If the points selected are distant points, their separation on the negatives will be equal to the lens separation and the two distances will

therefore cancel each other. It is then only necessary to mount the positives so that two corresponding distant points are separated by a distance equal to that between the eyes. If there are no distant points in the view the complete rule must be applied, and if all the objects are very near, it is especially important that the rule should be strictly observed. If a prismatic stereoscope is to be used, the width of one prism should be added to the positive separation as found by the rule. This addition is exactly correct if the prisms are half-lenses properly centered in front of the eyes and, though these conditions are seldom fulfilled, the correction is generally true enough for all practical purposes. With very near objects and widely separated lenses the proper separation for the positives is sometimes so small that the prints have to be trimmed down to absurdly small dimensions. Further, the negative images come very near the ends of the plate. To avoid these effects the separation of the lenses must be reduced and the adjustment it best made by trial on the focusing screen, for, if each of the two negative images is fairly well centered in its own half of the plate, a convenient mounting separation will generally be secured.—*"British Journal of Photography."*

Tilting the Head

In another paragraph I told you something about turning the head at an angle with the body. Turn your head naturally to the side and you will find that your chin advances ahead of the upper part of the face in so doing, as a rule. This gives a slight tilt of the head towards the side to which the body is facing. Remember this when tilting the face in addition to turning it. If the tilt is in the opposite direction there is the same stiff-necked effect that you secure when turning the body with the head. This wrong tilting of the head is not so common an error as the other one which I mentioned, but it is more destructive to a good effect. It is rarely advisable to tilt the head at all, but a slight inclination is sometimes characteristic and often improves the appearance by changing a little the perspective of the face.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

The Selection of Papers for the Gum-Bichromate Process

"Perhaps the most curious part of the gum-bichromate is that the cheaper and more common the paper the better it seems to answer. That is certainly my own experience, and a passage in Cruwys Richard's book, 'Practical Gum-Bichromate,' seems to suggest that his experience has been very much the same. Certainly the ordinary cartridge papers which can be obtained in rolls from the dealers in artists' supplies seem to answer quite as well, if not better, than, say, any other paper whatsoever. A friend of mine who has done some very effective and delicate gum prints in less than half-plate size has consistently used, ever since he started, the fly sheets of a stock of letter paper which a change of address had rendered obsolete.

"But, after all, the gum-bichromate worker decides that he must use a paper which his first trials show is not in that condition very suitable, it is easily put right by sizing. The editor of 'Photography' suggested, a year or so ago, that a piece of paper wanted in a hurry might possibly be sized with celluloid or cold-drying negative varnish, and this I have found an excellent plan. The paper is simply treated on both sides with the varnish, which should be of the 'pear-drop' kind, and is hung up to dry. It is too expensive a method to be practiced regularly. In the ordinary way a quarter of an ounce of gelatine is soaked in a pint of cold water, heated until dissolved and is then, while warm, well brushed into both sides of the paper. Or the paper may be allowed to soak in the size for a minute or

two in a dish, but should be brushed so well. It is then hung up to dry. Some papers are all the better for a second, or even a third, application."—"Photography."

Lessening Contrast Between Sky and Foreground

There have been many contrivances designed with the view of reducing the exposure for the sky in relation to that for the duller portions of the scene; an old expedient for this purpose being the adjustable sky screen fixed in front of the lens, and consisting of narrow strips of metal or wood, each of which may be adjusted so as to build up an outline approximately corresponding to the sky line. Then, again, there are shutters giving less exposure to the sky than to the foreground and graduated yellow screens. These and other forms of sky screens are discussed at some length by Herr Hans Schmidt, in the "Photographische Mitteilungen," but the technical imperfection of the results obtained with any such contrivances must be obvious to all, as none of them control the illumination from objects, they merely graduate the light on the plate. When a subject includes extreme contrast and true effect is desired something can always be gained by backing the plate; but, apart from this, the plate should be one that is thickly coated, and so much the better if coated with two or three layers of emulsion of widely sensitiveness, the most sensitive on the outside and the least sensitive next the glass. This principle, it will be remembered, was introduced by Mr. Sandell. Another matter of importance is a full exposure with a lens so constructed as to give a minimum of adventitious light and somewhat restrained development. The

best lens for work involving extreme contrasts is a single anastigmat—that is to say, a cemented single lens without any air gap, the edges carefully blackened, the glass itself quite free from air-bubbles, and the mount carefully blackened inside. When all the above hints are acted on it becomes possible not only to perfectly reproduce sky and the deeper tones of landscape on the same plate, but also to successfully deal with such subjects as interiors when the camera is directed towards a window and there are figures standing not only outside but also inside the room, and well in the shade.—Thomas Boles, in “English Amateur Photographer.”

The Ammonium Persulphate Reducer

Henry W. Bennett communicates to “Photography” a most important paper on this method. After showing its great value in the saving of over-dense negatives or those with excessive contrasts, he points out that its popularity has been checked by the uncertain quality of the salt, its slowness in starting, and, often, excessive rapidity in ending reduction, and often an irregular action, resulting in a ruined plate. All these defects Mr. Bennett has overcome, and the following excerpt of the working details should enable us all to save many a valuable negative:

“A stock solution is prepared:—

Ammonium persulphate ...	480 grains
Sodium sulphite	96 grains
Sulphuric acid	48 minims
Water to make	10 ounces

This forms a ten per cent. solution of ammonium persulphate, and it will keep indefinitely. A solution that has been mixed for several months was found to work as perfectly as one freshly prepared. For use, one part of this stock solution is taken and nine parts of water added; the working solution containing, consequently, one per cent. only of ammonium persulphate. This strength is ample for ordinary work. The solution works with sufficient rapidity; its action is very uniform and well under control. With plates formed of very hard gelatine it may be necessary to use a stronger solution.

“The plate should be first soaked in water until the film is thoroughly softened. With a plate in which the gelatine is very hard, especially if a long time has elapsed between development and reduction, a little ammonia should be added to the water in which it is soaked, and it must then be well washed. It is then placed in the reducing solution and the dish rocked so as to insure even action. The reducing action commences at once, and a white substance is soon seen flowing from the denser portions of the negative as the solution travels across. Although this is practically the same action as that previously described as indicating the approach of the dangerous stage when using a simple solution of persulphate, with this bath the risk of uneven action or staining does not arise. This milky precipitation commences almost as soon as the reducer is applied to the plate and continues throughout the whole operation. It is an indication that the work is progressing. This precipitate causes the solution to become slightly milky, but reduction continues evenly and steadily; it does not gain in speed and no fear need be entertained that any sudden change may occur or staining or uneven action ensue. The plate retains its original color unless considerable reduction is effected, when it becomes browner in tone. Progress is gauged by examination in the usual manner, and as soon as the work is carried sufficiently far, the plate is washed rapidly in two or three changes of water and placed in a clean fixing bath. A plain solution of hypo of the usual strength for fixing negatives should be used. After the hypo the plate should be washed as usual. If reduction is carried very far the image may change to a decided brown color in the solution, but it becomes a brown-black again in the hypo bath. It is essential that the negative should be reasonably free from hypo before reduction is attempted, or the solution may fail to act.

The Chemistry of the Sulphide Toning Process

The “British Journal of Photography” recently published a most interesting article on the above subject from which the following excerpts have been culled, and,

as will be seen, they have a direct bearing on the practical application of this, now popular process. The author, after stating that his bleaching solution consists of "nine grams each of potassium bromide and cyanide," goes on to discuss why the bromide is a necessary ingredient, and then goes on to consider the nature of the bleached image, concerning which he says: "It seems to be generally assumed that the final result of the bleaching is the conversion of the silver image into ordinary silver bromide, AgBr . I think that I have proven that this view can no longer be retained. However long the print remains in the bleach, it is never, literally speaking, bleached. The 'bleached' image is always clearly discernible and has a pronounced brownish hue, even when the bleaching operation has been conducted in non-actinic light. But ordinary silver bromide is not brown. If a bromide print is bleached in bromine water (when, undoubtedly, ordinary silver bromide must be formed) the print is literally 'bleached'; it is quite impossible to discriminate between the white image in silver bromide and the white paper which supports it. Again a print bleached with the bleach in darkness is readily redevelopable by any of the ordinary developers, but a print bleached with bromine water in darkness must first be exposed to light before it can be redeveloped.

"From these two conditions alone it is clear that the bleached bromide print cannot consist of ordinary silver bromide. Of what, then, does it consist? I believe of a hitherto unrecognized sub-bromide of silver which, for the present, I propose to distinguish by the noncommittal title—the puce-colored bromide of silver. The puce-colored bromide would seem to be more readily dissolved by alkaline bromides (potass. and ammonium bromides) than is the ordinary bromide of silver. For, if two slips of the same bromide A and B are bleached, A in potass. ferricyanide containing a fair excess of ammonium bromide, B in bromide water containing the same concentration of ammonium bromide and the slips are then sulphuretted, it is found that the image of slip A is ever so much more reduced in intensity than is that of slip B. Indeed, an

over-developed bromide print may very successfully be reduced and toned at the same time by increasing the amount of bromide in the bleaching bath prior to sulphuretting. In general, it may be stated that the greater the concentration of the bromide in the bleach the colder and more purple is the resulting tone and the fainter is the picture.

"In this connection the point arises whether there is not an unnecessary excess of bromide present in the empiric recipe for the bleaching solution given in the 'Almanac.' The molecular weight of ammonium bromide is 98; that of potass. ferricyanide is 329. Even if ordinary silver bromide (and not the puce-colored sub-bromide) were the final product of the bleach its indirect formation via ferricyanide would demand the presence of only one gramme-molecular weight of NH_4Br to each gramme-molecular weight of potass. ferricyanide. Whereas the bleach made up according to the recipe contains about 3.6 gramme-molecular weights of ammonium bromide per one gramme-molecular weight of potass. ferricyanide. This apparently unnecessary excess of ammonium bromide may (in view of the susceptibility of the puce sub-bromide to the action of alkaline bromides) have a deleterious reducing effect on the faint details of such prints as, prior to toning, are not over dense, but exhibit a satisfactory depth and range of gradation.

"It is generally taken for granted, I believe, that the sulphuretting of the bleached image converts it into ordinary sulphide of silver— Ag_2S . It has always seemed to me, however, that the correctness of this assumption is *a priori* improbable. For ordinary sulphide of silver is, to use a colloquialism, "as black as one's hat," whereas the finished toned image varies in hue from brown to sepia. Of course, there is the possibility of the dichroism of silver sulphide—a substance which, in bulk, is black—might in thin layers be brown or sepia colored. But I believe I have sufficient proof of the correctness of my *a priori* conclusion that the toned image does not consist of ordinary silver sulphide.

"As a sulphuretting agent, I originally made use of the solution of sodium sul-

phide, of the concentration recommended in the 'B. J. Almanac,' but I soon abandoned this solution on account of its poor keeping qualities. The sulphuretting solution which I chiefly used, and which I would recommend to the notice of sulphide toners, was a solution of the sulphhydrate (and not the sulphide) of sodium. This solution I prepared in the following way: '6 grams of caustic soda were dissolved in 250 ccs. of water, and the solution was divided into equal portions; one portion was saturated with well washed hydrogen sulphide and then added to the untreated portion. A solution so prepared can be used over and over again, and keeps its virtues perfectly for at least six months. Sodium sulphide solution of the strength usually recommended is completely decomposed and worthless for toning purposes in three or four days. In addition to its stability, the sulphhydrate solution also possesses the great recommendation that it has a barely perceptible smell of hydrosulphide, so that it may be used in a laboratory or studio without annoyance. When, however, the toned prints are submitted to the action of the wash water there is a considerable evolution of hydrogen sulphide, and, therefore, it is advisable to conduct the washing out of doors, or, at any rate, in a room where fumes of hydrogen sulphide can do no damage to man or material. The tones given by this sulphhydrate solution have a pleasing, purplish tinge, and it seemed to me (though I would not venture to dogmatize on the point) that this solution does not choke up the heavy shadows in the picture to the same extent ordinary sulphide solution is well known to do. What, then, is the nature of the brown or sepia-colored body formed in the sulphuretting bath? I believe it to be gelatino-sulphide of silver, probably approximating in its character to the protalbates and lysalbates investigated by Paul and Voss."

Stereoscopic Lantern Slides

Probably many people who have taken interest in stereoscopic photography at one time or another have regretted that there should be no simpler means for showing the effect to a large audience.

As a matter of fact, this can be done very easily in either of two ways. A stereoscopic lantern slide is first made by photographing an ordinary stereoscopic pair of pictures. This pair of pictures is then projected upon the screen with an ordinary lantern. The stereoscopic effect is obtained by using either a mirror stereoscope or a prism stereoscope. The former consists of two small pieces of mirror held one in front of each eye. The observer has the screen not in front of him but on one side, say about sixty degrees from the direction in which he is facing.

In each mirror the pair of pictures is seen, and by tilting one mirror with respect to the other so that the two outside images are superposed, the picture suddenly leaps into relief. Of course, if the wrong pair is superposed the familiar inverted relief will appear. It is easy to mount the mirrors in a sort of spectacle frame, one of them being fixed and the other capable of rotation about a vertical axis.

It would not be difficult to explain to an audience of average intelligence the method of using such spectacles; the spectacles could be made at a very small cost, and the beauty of the effect would appeal to many. Cases frequently arise in university lectures in which a stereoscopic presentation of slides would greatly simplify explanations, e. g., in biology.

The other method is to use a single achromatic prism which is held in front of one eye, the refracting angle being vertical and directed towards the other eye. Of course, prisms of different angles are required for different distances, but a single prism can be made to suffice for a large range by twisting it about a vertical axis without greatly impairing the "stereoscopia." At first sight one might think that the effect could only be seen by observers situate in or near a plane bisecting the screen at right angle, but this is not the case. Indeed, anyone who has worked with stereoscopic photographs must have been struck with the ease with which the eyes will adjust themselves to pictures which are not correctly aligned, and experiment also shows that the two pictures need not be of the same size.—G. A. Shakespear, in "Nature."

Our Book Shelf

"Home Portraiture"

Several most valuable booklets have been issued recently by the leading firms catering to the wants of the amateur and professional photographer, and the latest addition to the list, "Home Portraiture," comes from the Bausch & Lomb Optical Company, of Rochester, New York. We need only say in its praise that it is a booklet well worthy that firm's endorsement and approval, and a copy should be sent for at once. It contains reproductions of home portraits, groups and interiors, many of them full-page illustrations, and all good examples worthy of close study. The major portion of the text is devoted closely to the subject, and is by Joseph R. Iglick, an amateur photographer of Rochester, who is well known through his pictures being so often reproduced in the magazines. The only advertising matter in the book is a list covering the prices of five series of Bausch & Lomb lenses, occupying less than two pages at the end; in fact, it would be an unkindness not to give this information after showing such fine examples of work made with the lenses in question and arousing the reader's interest, as the book cannot fail of doing. Write the firm for a copy before the edition is exhausted, and, even if that danger does not threaten at once it is unwise to deny yourself the information which the book contains.

"Self-Propelled Vehicles"

"Self-propelled Vehicles."—A practical treatise on all forms of automobiles, by James E. Homans, A. M., Fifth Revised Edition, 1907, entirely rewritten; \$2.00. Theo. Audel & Co., 63 Fifth Avenue, New York, N. Y.

New and completely revised, this popular book fulfills the requirements of the motor vehicle owner, operator and repairer. In his revision, the author has emphasized the practical aspects of motor vehicles of all powers, confining his space to the discussion of matters fundamental in construction and management. Theo-

retical matters—important almost wholly to designers and builders—are introduced only where good explanations positively require them, and at no point is the reader's mind burdened with padded material on experimental and obsolete construction.

Recognizing that the gasoline vehicle is the typical automobile, considerable space is devoted to its complete discussion; theory, operation, and an extensive chapter on "Gasoline Engine Management," the latter covering, virtually, all forms of difficulty liable to occur under service conditions. Anyone reading this chapter can derive an intelligent conception of the requirements for an expert driver, and will find numerous points of information, usually obtainable only by long and varied experience. All the accessory parts of an automobile, carburetters, igniters, transmission gears, are fully explained by typical examples. The author properly assumes that an adequate knowledge of the principles upon which these devices are constructed will enable the reader to understand variations for himself. To sum up the excellencies of this book, it must be acknowledged that it fulfills the ideal of the practical motor driver's vade mecum. All subjects are fully illustrated.

The California Girl

The native California girl is a new type, says a writer in "The Travel Magazine." Tall, vigorous, robust, she also is of the freer life and milder air. The mincing step has gone, because her limbs have struck into the longer beat of life about her, and she strides more bravely to a more stirring gait. Conventions bind her less because she has more natural relationship with men, and where danger might lurk, her freedom has bred a bold frankness, piercing shams and conquering fear. She dresses well in the bright colors, caught from the higher lights of her native landscape. She is "blooded to the open and the sky."

Club Notes

The Chicago Camera Club

The club enjoyed a very instructive lecture on the subject of lenses, delivered by L. F. Deardorf on the evening of January 17th. A large number of the members and their friends were present and many expressions of keen interest were heard at the conclusion of the meeting. The announcement has been made that every Thursday evening hereafter not occupied by regular meetings will be classed as a "school night," a definite subject being assigned in advance. January 24th will be devoted to enlarging and the following Thursday to lantern slides. Members are invited to bring their pet negatives and bromide paper or lantern slide plates as the case may be, and a member familiar with the subject for the evening will be on hand to demonstrate to all comers. The Print Exhibition begins January 24th, and all members are requested to contribute their best prints for the walls during the exhibit. The rejected salon pictures are now on the walls and members and others are invited to call and inspect them before their removal for the exhibit set for January 24th.

CLARENCE B. HALE,
Secretary.

Wisconsin Camera Club

The program of the Wisconsin Camera Club for February, 1907, is as follows:

Special—Tuesday, January 29th, Gum-bichromate Process. Demonstration by Mr. B. F. Langland. Tuesday, February 5th, Suggestions in Composition, by Prof. Alexander Mueller, this being the first of a series of five lessons. Each member is expected to bring a print or lantern slide of his best composition. For this series the admission for non-members will be twenty-five cents; course tickets, one dollar. Tuesday, February 12th, lantern slides from the Detroit Camera Club. Tuesday, February 19th, How to Make Slides. Demonstration and talk by Mr. C. L. Fortier. Tuesday, February 26th, "My Favorite Developer," Mr. Max R. Schade. The gen-

eral print contest, last of series, closes May 6th, 1907. The Club is located at 623 Grand Ave., Milwaukee, Wisconsin, and is a most enthusiastic one.

California Camera Club

The California Camera Club has resumed its usual activity in the way of entertainments, exhibitions, lectures, talks and the like, as the following brief resume will show. Other good things are in store for the members, and with the facilities for developing, printing, enlarging and studio work in complete working order, as they now are, membership is certainly most desirable.

November 14, 1906, a general meeting was held at the rooms, during which the slides of the Photographic Society of Philadelphia were shown. The rooms were packed with members and their friends, and a most enjoyable evening resulted. Two evenings later, November 16th, the one hundred and ninety-second illustrated lecture was given at the Christian Science Hall, the largest in the city, and its capacity was taxed to the limit. Captain Hiram G. Morse lectured on the South Sea Islands, showing in connection therewith several hundred excellent slides. December 13, 1906, a general meeting was held. Dr. A. S. Wais gave a very interesting talk on Radium, discussing its history and its properties, including its application to photography, most entertainingly. The same evening the slides of the Buffalo Camera Club and the Denver Photographic Society were shown. As before, the rooms were crowded. Friday evening, December 21, 1906, J. W. Lundy gave the one hundred and ninety-third monthly illustrated lecture of the club at Christian Science Hall, his subject being, "Three Weeks in London." The slides were exceptionally interesting and his talk in connection therewith very instructive. Both the regular meetings at the club rooms and the illustrated lectures will be continued regularly, and residents of San Francisco and the Bay cities interested in photography should avail themselves of at least a subscribing membership.

Notes and Comment

The Progress of Rebuilding San Francisco

The facts expressed in the figures for each succeeding month's operations in the business world of San Francisco are eloquent of achievement. With constantly growing certainty they are verifying the most sanguine prediction of her hopeful and dauntless business men. Face to face with these figures, what happens to the pessimism of the many who dolefully predicted, immediately after the great calamity, that San Francisco would never be rebuilt, or that it would take twenty years to put the city back where it was before the fire? Sad to say, self-interest dictated much of this attempted discouragement in those days of stupendous crisis. The new San Francisco, now well under way, can afford to "forget it." For in the closing days of the year that marked within her gates the most stupendous wholesale destruction of commercial plants, property and other assets, in history, San Francisco, still "Warder of the Golden Gate," and of the vast commerce that flows ceaselessly to and through it, summing up the good and evil of the year, "in equal scale weighing delight and dole," find that in net results of business activities 1906 actually surpasses 1905—the latter a banner year in San Francisco's prosperity.

It is written large in the cold figures of actual business operations since April 18th, last, that the awful blow Fate handed to San Francisco that day was not a finisher. Down, but nowhere hear out, San Francisco is coming again—a sure winner. In the flood tide of her prosperity three hundred millions of dollars' worth of property, approximately, was reduced to junk and ashes. Despite all of which, at the end of the year, we find her banks clearing more millions per month than at any other time in the history of the city. The New Zealander (or other "outlander") who sits down to sketch the ruins of anything in San Francisco evidently will have to hurry. Bearing in mind, so far as is possible, the full extent of the calamity, is it

not marvelous that six months later we find the "ruined" city clearing through its clearing house practically the same number of millions as clanging, hustling, roaring Pittsburg? In prosperous 1905, Pittsburg's clearances exceeded those of San Francisco by more than \$55,000,000.00 for the month of October. In the October just passed the two cities were almost on even terms. Pittsburg has gained, too, and rapidly; but San Francisco has nearly caught her. San Francisco's total clearances for 1906 come very close to two billion dollars. Remember that for thirty days immediately following the calamity there were no clearances; that in May they were only \$64,000,000.00, and that since the fire the large volume of business of busy Oakland, formerly cleared through the San Francisco clearing house, has been cleared in Oakland.

In the last publication issued for Santa Fe readers, comment was made upon the fact that six months after the fire the value of new buildings, for which permits had been issued, was over \$18,000,000.00—within ten millions of the total value of the permits issued in big and busy Baltimore during the two years following her disaster,—a comparison pregnant with value in any attempt to grasp the rapidity of San Francisco's rehabilitation. Now, however, eight months after the fire, building permits have been applied for in San Francisco to the value of \$34,520,137—more than six million dollars in excess of those issued in Baltimore in the two years mentioned. Next to bank clearances, perhaps the most nearly accurate barometer of a city's prosperity, is its postal business. Here we find the same marvelous story—not told in per-fervid rhetoric but in the passionless phrases of statistics. In 1905 the total value of money orders issued at the San Francisco office was a little over \$26,000,000.00. In 1906 it has exceeded \$29,000,000.00. Surely no one will attempt to demonstrate that the abnormal conditions would call for an unusual disposition to send money out of the city. Similarly the total postal revenues received in

1906 were greater than those of 1905 by more than half a million dollars.

Within six months after the calamity San Francisco had not only recovered her full pre-eminence as the great port of the Pacific Coast, and one of the world's great ports, but was, and is, constantly augmenting her great ocean-carrying trade. As to labor and wages the conditions set forth in the last Santa Fe publication still obtain. There is an enormous demand for labor. The supply is wholly inadequate. Naturally, wages are high. Living is high, too. This should be said in fairness. But the increase in the rate of wages more than offsets the increased cost of living, by far.

Hotel accommodations, enormously increased in the two months last past, are being added to constantly. New theaters are being completed as rapidly as possible. The famous restaurants, which have given San Francisco world-wide celebrity as a haven for epicures with canvass-back tastes and wienerwurst incomes, are nearly all installed in new homes in or near the new retail district.

This new retail district, with Van Ness Avenue and Fillmore Street as two of its main arteries, presented in the Christmas holiday shopping season scenes of marvelous activity, life and color. Were anything lacking to complete the hopeful picture at the close of San Francisco's fateful year, it could be supplied in no more satisfying way, perhaps, than by a glimpse of the gay, happy, merry-faced throngs surging in and out of the new homes of the great trade emporiums,—past calamities and hardships forgotten quite, apparently, and in their place hope and warm-hearted holiday cheer.—Santa Fe Railway Folder, "New San Francisco."

School of Photography

March 20th, 21st and 22nd next, there will be a School of Photography held at Franklin Hall, San Francisco, under the auspices of Hirsch & Kaiser, in conjunction with the American Aristotype Company. This will be one of the important events of the year; several representatives of the last named firm coming from the East to take part in the work. All photographers, both amateur and professional, are urgently invited to attend. Full announcement will be made in our next issue.

Graflex Negatives

Folmer & Schwing Co., of Rochester, N. Y., are desirous of securing negatives of subjects showing motion made with the Graflex camera. For suitable negatives of this kind they will exchange goods of their manufacture. Those who use the Graflex camera and have negatives of this character might find it of interest to submit prints to them. The firm always give full credit in using such pictures in their printed matter, and their reproductions are invariably the finest that can be made. Graflex camera users should not overlook this opportunity of turning a part of their work to good use and send a selection of their best prints, showing moving objects, to Folmer & Schwing, Rochester, N. Y., who will advise if any of the negatives are suitable for their purpose.

The New Goerz Catalogue

We are just in receipt of one of the new Goerz catalogues, and it is certainly about the finest thing in the way of a catalogue that we have ever seen. It is about twice the thickness of this magazine, and the pages are some 8x10 inches in size. It contains a beautiful full-page photogravure frontispiece in addition to some dozen or more of the same size in halftone, with numerous smaller illustrations. In addition to a full list of the Goerz line the book also contains many pages of valuable information. To quote a few of the captions, there are "Relative Exposures for Varying Proportions of Image to the Original," "Soret's Tables of Angles Included by a Lens," "Increase of the Focal Distance of the Lens Due to Different Distances of the Object," and the like. The handsome cover design is reproduced in their advertisement last month, although it only suggests the beauty of the cover when one understands that it is printed in two colors and gold. The book will be sent on receipt of nine cents, which is the exact amount of postage on the copy which reached our desk to-day. Do not neglect to write for a copy to the C. P. Goerz American Optical Co., 52 Union Square, New York. The supply cannot last always, and you will reproach yourself for not having secured a copy, should you put it off until too late.

Camera Craft



San Francisco, California.

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CAMERA CRAFT

1915 POST STREET

SAN FRANCISCO, CALIFORNIA



A PORTRAIT STUDY
By O. H. BOYÉ

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. XIV.

SAN FRANCISCO, CALIFORNIA, FEBRUARY, 1907.

No. 2

Child Portraiture at Home

By JOHN ASTROM

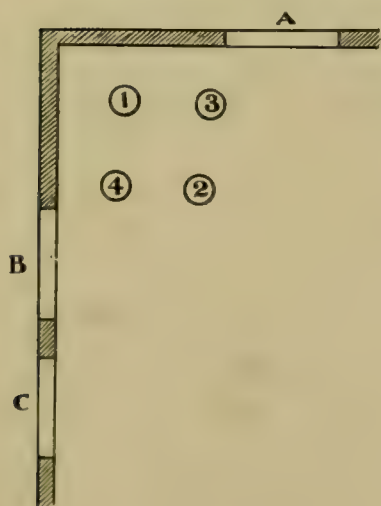
With Illustrations by the Author

The most satisfactory place for making a picture of a small child is without doubt at home. If taken to the photographer the little one generally kicks, and if the arrangements and the strange place, not to mention the camera and the photographer himself, have not exhausted its patience, there may be other things making it hard to obtain a natural and, if possible, jolly portrait. Fortunately, it is not so hard to find a spot in most homes where a good portrait may be secured without turning the house upside down, and, hoping that a description of how I have secured the portraits herewith will be of interest to some readers of "Camera Craft," I will endeavor to give my experience in this particular line.

The diagram shows a corner of the room where the exposures were made. "A" is a larger window facing west, "B" and "C" are somewhat smaller windows towards the south. The wallpaper of the room is brown, the ceiling light. During the middle of a clear day the room is light enough to permit of well-exposed plates with a stop of f-8 and an exposure of about one-third of a second. The plates used were instantaneous isochromatic. The faster the plate the better, because the exposure must be limited to a minimum, due to the nature of the subject.

Following the advice of those who know, the writer spent some time studying the effects of light and shade upon a subject placed in different positions. Near the corner, at "1," the light is even and soft, with hardly enough contrast, if all windows are uncovered.

Moving diagonally into the room to point "2" an exaggerated Rembrandt effect is secured, somewhat relieved, though, by the light from "C." At points "3" and "4," any degree of side-illumination can be secured. By pulling down one or more curtains to a certain extent a variety of modulations are possible without moving the subject. If the sunshine strikes the floor somewhere, the reflex light may often be used to advantage.



A study of the possible different effects, backed by a few trial exposures, will soon teach the worker to avoid the more marked contrasts. The plate is far more sensitive to even a slight difference of intensity than the eye, and the shadow which seems in no way to obscure the detail may require several times the exposure which is proper for the highlights, the result being too much contrast in the negative. This is a point on which the eye, if not consciously trained, lacks judgment.

A background of a non-actinic color, such as brown or yellow, red and green, a sufficient distance behind the subject, is the best possible preventative of halation. A similar case was mentioned recently by a correspondent of "Camera Craft" who found that a white object could be photographed



in bright sunlight without a trace of halation if placed in front of an entrance to a deep and dark hallway.

It is well to make the child thoroughly acquainted with the camera, so that its presence and "click" become an uninteresting thing. The focussing and arrangements must, as far as possible, be made before the little one is placed in position, and while the whole proceeding still has some interest to her, or him, the exposure should be made. A good way is to focus a flat object, placed where the subject is to be, sharply. Part of the face and body will then be somewhat nearer to the camera, which takes away the undesirable sharpness.

Among the great number of developers now in use I have found pyro to be as good as any, and better than many. It can be made to produce almost any kind of a negative, from the softest to the extremely sharp and contrasty one, the only requirement being a knowledge of the action of the

different chemicals used. Without pretending to furnish anything new, I will here give a formula upon which I have settled for all ordinary work, and which is a modification of the one given by Ilford (England):

Stock Solution I

Water	100 parts
Dry Sulphite of Soda.....	3 parts
Dry Carbonate of Soda.....	2 parts
Bromide of Potassium	0.1 part

This solution keeps well, but it may sometimes be necessary to add some fresh sulphite, which gradually oxidizes in contact with water and produces negatives of too brown a tint, when the solution becomes very old.

Stock Solution II

Water	100 parts
Metabisulphite of Potassium.....	3 parts
Pyrogallie Acid	15 parts



Add the pyro to the water only after the metabisulphite is dissolved, and keep in bottle with ground glass stopper. Make no more than will be used within, say, three months. If the bottle is full, the keeping-quality is excellent, although the solution is still perfectly good after it has assumed a deep orange color.

Make a fresh developer for each plate, by mixing in the rotation given:

Stock Solution I	50 to 150 parts
Stock Solution II	5 to 10 parts
Water	100 parts

Solution I, containing the sulphite, prevents oxidation; therefore, the solution II should be added to it directly. By adding solution II to the water a brown cloud may sometimes be seen forming, and the developer may be discolored before the development is finished.

The influence of more or less of the solutions I and II is too well known to be mentioned here.

In order to obtain, in the special case here described, the required softness and evenness, with full details in the highlights, in spite of the short exposure given, take the smaller quantity of solution I and add about twice the amount of water given. The development will then require about ten minutes. The proper intensity is generally reached when the highlights are visible as a light gray shadow on the back of the plate.

In this connection I should like to mention an experiment which resulted in utter failure. A leading photographer in Europe, who used plates of English make, was in the habit of heating up the developer during development in order to increase the chemical action when the plate showed signs of underexposure. This method is extremely opposite to what we are used to do; that is, dilute the developer and slow down the action. I tried the same method on two leading makes of English plates, and satisfied myself that the result was a much-improved negative. The heating was carried on to a temperature uncomfortable for the fingers.

In the hope of thereby being able to reduce the time of exposure materially, I tried the experiment on some well-known plates made in this country, but as soon as the developer became lukewarm the films ran away. It is evident that our American plates, despite their many other good qualities, are not as amenable to this treatment as are those of English manufacture, which are perhaps calculated to withstand tropical climates and tropical development.



IN AUCKLAND HARBOR
By C. W. SUNDSTRUM

Pictures for Farm Papers

By O. H. BARNHILL

Showing Reproductions From Some of the Leading Journals

Farm papers use a large number of photographs for reproduction in their pages and the demand is constantly increasing. A large proportion of these pictures are the work of amateurs, and while the price paid is usually

small, the benefit derived from having one's work published is not limited to the immediate cash return. Besides the gratification of having one's work reproduced, the educational and advertising value is of considerable worth. There are few amateurs who have not in their collection of prints many examples of their skill which the agricultural publications would be glad to use. Artistic excellence is always appreciated more or less, especially



DUTCH BELT STOCK

From "Kimball's Dairy Farmer"

by higher classes of rural publications such as "Country Life in America" and "Farmer's Voice," which appeal principally to dilettante farmers or city men owning country estates. Many farm magazines use a high grade of paper and make half-tone reproductions which rank with those of the best periodicals published. Many, such as "Farming," "Kimball's Dairy Farmer," and the like, run several departments, making the range of suitable photographs a very wide one. Others confine their pages very closely to actual farm matter, and for that reason can use only a particular kind of subject. The best plan is to at first send for a sample copy of the publica-



DUTCH BELT STOCK

From "Kimball's Dairy Farmer"

tion, and by examining its pages a good idea can be obtained of the kind of pictures that will prove most acceptable to the editor. We reproduce herewith typical illustrations from photographs which have been used by several



From "Farmer's Voice"

SOME OF MR. RUSSELL'S TIP-TOP PLYMOUTH ROCKS

of the journals mentioned, showing the wide range of acceptable work. The editor of "Kimball's Dairy Farmer," Waterloo, Iowa, writes: "We are always in the market for good photographs. We like especially dairy farm scenes, such as pictures of herds and barns. We are also pleased to get hold of photographs suitable for use on the hog, poultry and household pages. In each issue we use some fancy cuts not pertaining to any particular phase of farm life—just illustrations. We pay for our photographs. The price depends somewhat upon the quality of the work and the subject."

The photographs that are most likely to prove available are those which are interesting in themselves, or which tell their own story without need of text matter. The subject may be a very common one, but if handled in an original and interesting manner it will be quite well suited to the purpose. Unusual subjects are generally most acceptable. Views of farm buildings or pictures portraying subjects with unlimited possibilities as to treatment. Fruits and flowers are the hardest subjects on the farm to photograph, but if the results are good they are almost sure of acceptance. Agricultural fairs offer a fertile field for the camera, and good pic-



SEPTEMBER

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Trimmed down from Cover Illustration of
"Successful Farming"



TWO OLD FRIENDS

From "Farmer's Voice"

tures of the prize winning animals and exhibits are always in demand. The New York "Farmers' Tribune" uses about half a dozen photographs illustrating some individual farm or agricultural industry, in connection with a descriptive article, each week. One dollar each is the price paid for the photographs, and this is the usual rate of remuneration for good prints, although many pay less or pay in subscriptions. Some secure their illustrations by offering cash or other prizes for the best work submitted.

Printing-out paper makes the best photographs for reproduction, al-



DUTCH BELT STOCK

From 'Kimball's Dairy Farmer'

though good results can be obtained from developing paper if the prints are clear cut, vigorous and contrasty. Before submitting prints it is advisable to write the editor regarding terms of remuneration, and other particulars, telling him briefly what you have, and mentioning the size. For pictures of general interest I would recommend "Farming," New York; "Twentieth Century Farmer," Omaha; "Farm Press," Chicago, and "Farmers' Voice," Chi-



MARY, O. J. C. SOW

Owned and bred by M. N. Bishop, Eau Clair, Michigan

From "Farmer's Voice"



A HOME INDUSTRY ALWAYS POPULAR
From "Farming" By EVALYN J. LEE

cago. For strictly technical work, such as pictures of farm crops, products and the like, "Orange Judd Farmer," Chicago; "Rural New Yorker," New York; New York "Tribune Farmer," New York, and papers of that class. For pictures of children, of the household and the like, "Farm and Home," Springfield, Mass., and "Successful Farming," Des Moines, Iowa, are good types. The latter desires photographs of a suitable size for its cover each month, and these can be enlargements if the original negatives are smaller than 6x8, or give prints that require trimming to a smaller size. All the publishers like to trim prints most severely in order to secure strength, but it is best to send them prints from the full negative and allow them to be the judge in that respect. One of these cover pictures is reproduced herewith,



CROCUS—By NATHAN R. GRAVES

From "Country Life in America"

and although we have trimmed the block only about one-half inch on each side one can see that it is desirable to have the subject large on the plate. To further enlarge upon the subject, I would quote from a letter from the editor of "Farm and Home": "The photographs we purchase are both of general and special character, portraying incidents pertaining to farm life, children, pets and the like. For the agricultural pages photographs must generally be technical in character and accompanied with some data describing them. Good photographs of first-class specimens of live stock, fruits, vegetables, farm buildings and farm operations are mainly desired."

This, I think, is the position taken by most of the journals mentioned. The list that I have given is, of course, not a full one, but the names and addresses of others can be found by consulting the advertising columns of the ones mentioned.



THE OLD FASHIONED WAY OF KEEPING FOWLS
From "Farming" By BELLE JOHNSON

The Value of Old Negatives

By "OLD FORTY"

Probably about as many different ideas and varying opinions exist on this as on any other photographic subject. Years ago our printer said one day: "You are very careful of your negatives, and it takes considerable of our time to put each one in a paper sack, file it away in its numerical order and see that it is in its proper place in index register. Do you really think it pays you?" For answer I supplied him with a little book and asked him to note the name, order and date negative was taken for each order from an old negative. At the end of two weeks and again at the end of four weeks I asked him for his report. "I give it up," he said. "Your duplicate orders must be paying your running expenses." For many years we have had such results, simply of course because we took an honest pride in every sitting and saw to it that each and every part of the work was done in the most

thorough manner. So working, the results were sure to please all around, and in that way business making afterward. Just so, it seems to the writer, every photographer should look beyond the today. In fact, I believe the cause of much dissatisfaction all along the line is due to the fact that Mr. Picture-Maker has allowed himself to drop into a rut and allowed his work to go out of the studio in a slighted way; this, that, or the other item in its finish a little neglected. Now, young folks, brace up. Don't let it occur again. Over particular cannot be possible in the photographic business.

A Ballade of Jones

By RUSSELL W. TAFT

There once was a man by the name of Jones
 With a very ultra-pictorial trend,
 So he bought him a lens for a hundred bones
 And laid himself out to improve and mend
 The scenery God was pleased to lend;
 And the critics came, like a swarm of bees,
 And they said, for they failed to comprehend,
 "Where in the world are the like of these?"

For what appeared to be scattered stones
 Were sheep essaying their way to wend
 To a distant fold; the chaotic tones
 Of the sky seemed truthfully to portend
 Of all things earthly the utter end,
 While a few frayed bushes were meant for trees.
 Is it any wonder thus spake a friend,
 "Where in the world are the like of these?"

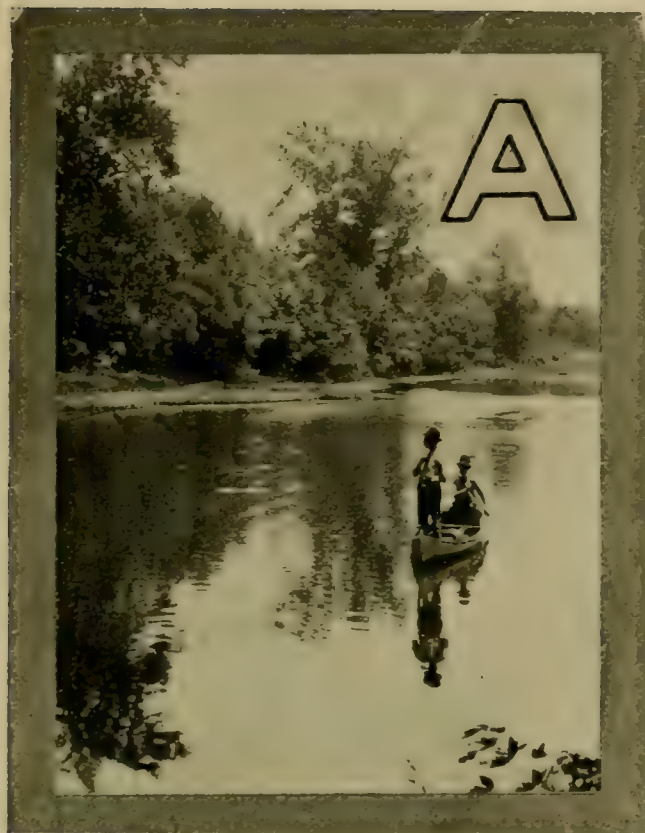
But the "artist" he heeded not the groans
 Of friend or critic. "I apprehend,"
 Quoth he, "They know not high art condones
 Atrocities seeming thus to blend
 All things unreal, and I'll forfend
 Their supercilious calumnies!
 This thing to the next Salon I'll send,
 For where in the world are the like of these?"

But the Salon Jury forthwith did bend
 In speechless rapture their august knees;
 Quoth they, "This gem doth all art transcend,
 For where in the world are the like of these!"

Photography for the Sportsman

By BENJ. W. DOUGLASS

With Illustrations by the Author



A SURVEY OF THE SHORE

ALTHOUGH I have been making pictures for a good many years, I have not yet joined the ranks of those who advocate deserting the gun for the more harmless shooting of the camera. I have in me the full masculine heritage of savage instincts and when I hunt I do it for the joy of matching my abilities with those of the wild creatures. I do not kill because I need the game for food, nor for the primitive joy of killing, but rather as David Starr Jordan expressed it: "To let the Indian in me escape."

To me, however, photography has added so much to my understanding and appreciation of the outdoor world that I have become an enthusiastic advocate of the camera, not as a substitute for rod and gun, but

as a most important auxiliary to them. To my mind no other outdoor sport lends itself to photography quite so well as hunting and fishing. The devotee of the stream and field has opportunities for picture making that are not equaled in any other branch of sportsmanship. He is constantly close to nature, and if he has a means of preserving the view of the early morning stream, grey and misty in the distance, or the sight of a



DOGS AFIELD



A PLACE FOR RUFFED GROUSE

showed a man bent nearly double under the huge box he was carrying on his shoulders. At that time it was necessary not only to finish the pictures as soon as they were taken, but to actually make the plates as they were needed. As a result the camera man had to carry not only his camera, which was very bulky, but his dark room and chemicals as well. Now, a most efficient camera taking a picture $3\frac{1}{4} \times 4\frac{1}{4}$ inches may be carried in the pocket of your hunting coat and the film for a dozen exposures is but little larger than a twelve gauge shotgun shell.

As to the kind of a camera best adapted to the use of a sportsman, nearly every one will have

sunlit woods in autumn, he more than doubles the pleasure he gets from having seen them.

Then there are always records to be made, pictures of the camp and the fellows around the camp fire, snap-shots of the dogs afield, fishing views, pictures of the boats and the game (if there is any) all pictures of personal interest and requiring for their making neither artistic skill nor photographic experience. Modern invention has so simplified photography that the veriest novice can not only "press the button," but by following a few simple rules may expect a liberal share of success in "doing the rest."

I saw an old book on photography the other day. It was printed nearly half a century ago, when the great art-science was in its infancy. At one place the author had illustrated what he termed a "portable photographic outfit." The picture



RESULTS

a different opinion. I have several different opinions myself, but get over the difficulty by owning several different cameras, one for each particular kind of work. For my serious work I use a rather large plate camera, a more bulky affair than the beginner in photography will care to bother with. I never take it on trips where I expect to tramp far from a base of supplies, but use it exclusively on journeys such as canoe trips, where there is an abundance of room for such baggage. It is a plain built affair of the type known as a view camera, and is used on a tripod. It is very simple to oper-



THE CAMP FIRE AT NIGHT

ate and has an excellent lens that will do almost any kind of photographic work you could assign to it. It is the shotgun of my cameras, and while it is heavy to carry around, it possesses the highest efficiency, and is suitable for all kinds of photographic game. I realize, however, that the average sportsman, for the present at least, will not care to go into photography quite as deeply as I have, but will want to make it decidedly secondary to his rod and gun.

To meet the requirements of this class of photographers the camera companies have designed many very excellent folding cameras. Some of them are made to use plates, some are for roll film and still others use the cut film put up in clever packages that are compact and convenient. For my own use under field conditions I have had particularly good success with a No. 3 Eastman folding pocket kodak. It can be carried in the side pocket of a hunting coat or may be swung over the shoulder in a special leather case.



A GOOD SQUIRREL WOODS

camera is just like a good gun; it must be made of first-class materials by first-class workmen, and that means in either case that you have to pay a fair price for what you get. No experienced hunter would buy a cheap gun; it might explode; with a cheap camera, you will probably do the exploding when you see the results.

Even when you have provided yourself with good apparatus, do not expect your first pictures to be the equals of those taken by an old hand at the business. Remember the first quail you shot at you probably missed and the first bass you hooked probably got away. You had to learn.

It takes a picture $3\frac{1}{4} \times 4\frac{1}{4}$ inches, which is large enough to show the subject well, is always ready for work, is compact, light, and holds film for a dozen exposures. Additional rolls of film are light and compact and may be carried in the same pocket with your shells, than which they are but little larger. I have used such a camera on hunting expeditions of all sorts and it is so light that it is entirely practical even for the lone fly fisherman sturdily wading up some mountain brook in quest of the wary trout.

But regardless of the kind of camera you buy or the form of ammunition that it uses, be sure that you avoid the cheap affairs for which the only recommendation is the low price. A good



SUPPER FOR THREE

You will have to learn photography in the same way; but it pays.

After providing yourself with a good camera of the compact, carry-in-your-pocket type, try a few exposures on familiar subjects around home so as to get the "hang" of the business. Don't rush out and buy a camera the day before you start on a hunting trip, expecting to make use of it on the expedition and intending to discard it as soon as you return. Photography, as I have said, is a good thing for the sportsman, a mighty good thing, and it is so simple that any intelligent man can easily master its essential features, but it is deserving of careful attention from the beginning, and it is for that reason that I advise a preliminary trial before working with a new camera in a serious field.

Unless you are a very busy man, do not let someone else finish your pictures for you; that is as bad as letting some one else land a bass that you had hooked. The sport comes in landing the bass and in finishing the pictures. Then, too, the finishing of a photograph is a very simple thing, far from being the fearsome bugaboo of former days. All of the work may be done at night in the darkened kitchen or bath room, and aside from the pleasure of making your own pictures, you will find that home work effects a very material saving on the cost. In fact, you can make your own picture for just about one-fourth of what the professional photographer will charge to do it for you.

While I haven't space to go into a discussion of the different processes of photographic work, I feel that I should not close this article without a few suggestions as to the limitations of the camera. Some beginners in kodakery lose interest in the work because they fail to understand that their cameras are not infallible. They are like a young friend of mine who tried fly fishing for the first time, on a windy day—said it wasn't any fun.

Don't try to take snap-shots unless you have a good light. Instantaneous exposures in the house or on cloudy days will simply be a waste of material. To start with, don't try to make pictures of long range subjects. A pointing dog half way across a ten-acre lot may be very pleasing to the eye, but he will not prove very important in a photograph. Get close to your subject.

Don't trust to the shutter on your camera to catch a bird in midair or to



RABBIT COVER

stop a fish leaping out of the water. To be sure, you do see just such pictures, but they are made with far more complicated and expensive cameras than the beginner will likely have an opportunity to use. Such cameras have shutters working as fast as one-two-thousandth part of a second; the speed of the shutter on your kodak will probably not exceed one-one-hundredth of a second. In the picture used as an initial the exposure was made just as the man in the bow of the boat, who was fly-fishing, made his back cast. The rod whipped through the air so fast that it is completely obliterated from the picture.

Don't try to make time exposures holding the camera in your hand. Get a firm support, or else don't take the picture.

Unless you are photographing some moving object, do not work your shutter at its fastest speed. Most shutters are made to work at from one second to one-one-hundredth of a second. In general, for snap-shot work, it pays to use not faster than one-twenty-fifth of a second; you will always get better negatives by the fuller exposure.

In conclusion, just a word about picture selection: what makes a picture? If you will go to the trouble to read certain books on photography you will find many rules laid down as to what constitutes a good picture, and how to take it. If you are so unfortunate as to find any such rules, try to forget them. You must learn picture selection by experience. If you see a view that you think would make a picture, take it. If you fail, you have learned something. There are some fixed rules in everything; if you are fly fishing and hook a bass, you positively must keep your line taut; but there is no fixed rule on where to cast to get that bass. So it is with your camera. You may find a picture most anywhere, often the most unpromising places yield the best results, and as for the rules—if you take pictures long enough you will eventually find that you can quite easily take a picture without having the sun over your left shoulder, as many early writers recommended.

A subject that tries the skill and patience of the most expert photographer is the blazing camp fire at night. First set your camera in a good position. Get everybody around the fire just as you want them in the picture, then open the shutter of your camera as for a time exposure, hustle around and get in the picture yourself, cast some flash powder into the fire, and the work is done. It won't hurt to leave the shutter open while you are getting placed. Have the flash powder wrapped in a piece of thin paper and use good powder, about a teaspoonful will be about the right quantity. It is a good scheme to have logs or stones piled around the fire between it and the camera. They will cut off some of the direct light from the lens and will help to throw the full strength of light on the people around the fire, right where it is wanted.

Some Fun With a Camera

By ULYSSES G. ORR

Illustrated by the Author



"CURE FOR TAKEMYPICTUREALL
THETIME"

Far be it from my intention to offer any excuse for stopping serious work with the camera. A little nonsense is good medicine. And this particular brand of homeopathic pill may be known to some; but many, who like to mix their own medicine, do not know the prescription, so to help them help themselves it is given here with some testimonials of its sure-cure infallibility. Photographs do not lie—oh dear no! so actual photographs

of the patients are shown to verify the efficacy of this remedy.

I once knew a girl who suffered a terrible malady known to the initiated as "Takemypictureallthetime," and one dose, administered secretly, proved a sure cure. I have not once heard of a return of her former ailment. The treatment is what is known to practitioners as "heroic," and one could see, directly the picture was handed her, that the cure was effectual. In the excitement, during the pathological action of the medicine, which seems to have some peculiar neurotic effect, the picture was destroyed, but I still had the negative.

"Jack Sprat could eat no fat"—it is a well-known

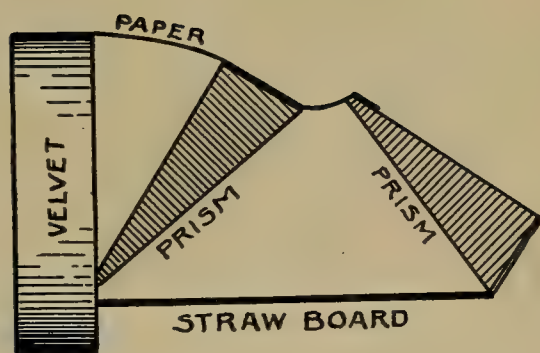
therapeutic fact, in these modern days of specialism, that one who cannot eat fat has some liver malady. His liver is on a strike! It has joined some union and refuses to work more than eight hours a day. Evidently, then, Venus has a liver, and alas! a union liver, too. Venus cannot eat fat! All lovers of art, no matter how enthusiastic, are forced to admit the fact that that superb vision of grace, the beautiful, stately Venus, cannot eat fat. Note this sad fact and see Venus in her "Before" picture. But Venus, the goddess of beauty, could not continue



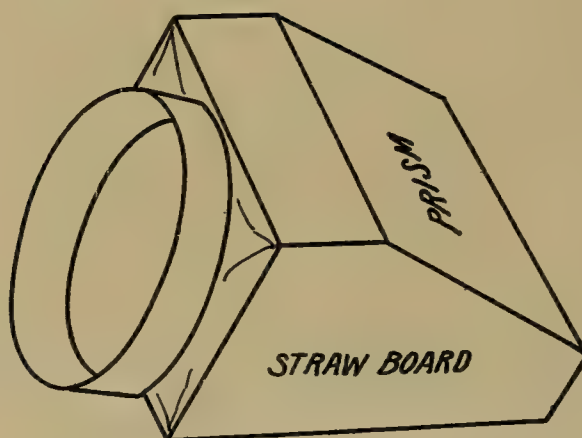
VENUS—BEFORE



VENUS—AFTER



SECTION THROUGH PRISM



COMPLETE HOOD

scrawny and keep her job. A beauty-god is not skinny and angular, and Venus has been noted for ages for the artistic contour, symmetry and rotundity of her graceful form. So, what did Venus do? She consulted a specialist, who prescribed redistilled, compound extract of essence of carbohydrate, in proper quantities, to be taken between meals, and to eat nothing but Hydro-metol-hypo, and, above all, to drink plenty of water. Why, she was so anxious to follow directions that she entirely submerged herself in water and drank continuously for one long hour! Goodness! and fudge! she hasn't eaten anything since. And still she cannot counteract the influence of that liver. It returned its union card and began working overtime at once. Woe unto Venus! I fear she will lose her job yet. Look at the graceful, artistic curves of her exquisitely moulded form—which was—and tell me, can Venus, as depicted in her "After" picture, ever present herself in any beauty show without provoking sympathetic and sarcastic smiles from patrons who are matrons with non-union livers?



ON A SHEEP RANCH

By WILLIAM S. RICE



"MY BROTHERS, IN FRIENDLY CONFAB, INVITE ME"



ME

My brothers called me into their room to try the effect of this newly discovered remedy on them. And let me say right here, this is not a cure-all. I would not have it understood, even for a fraction of a second, that this is to be classed with fake medicines which are guaranteed to cure everything and will not cure anything. It will cure just what is claimed for it, and is not expected to cure ham, bacon or even empty pocketbooks. I almost forgot my brothers. I forget everything when I get on the subject of this sovereign remedy. Well, the peculiarity of their cure was the strange exhibition of joy at finding that no one would know them by their pictures.

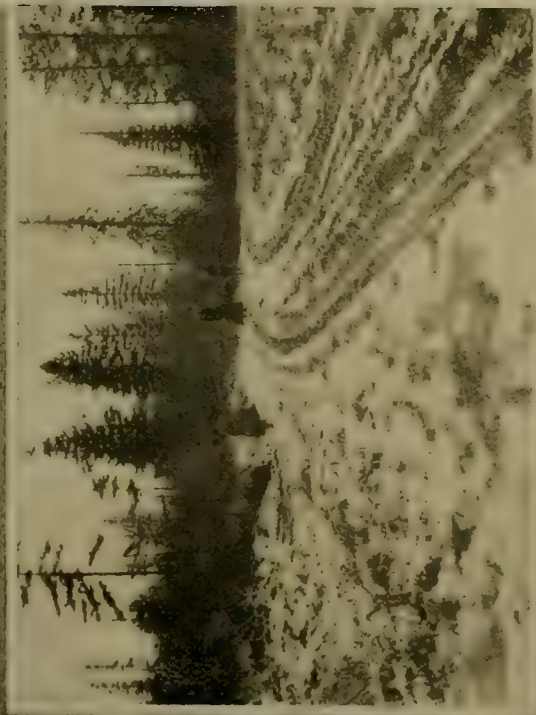
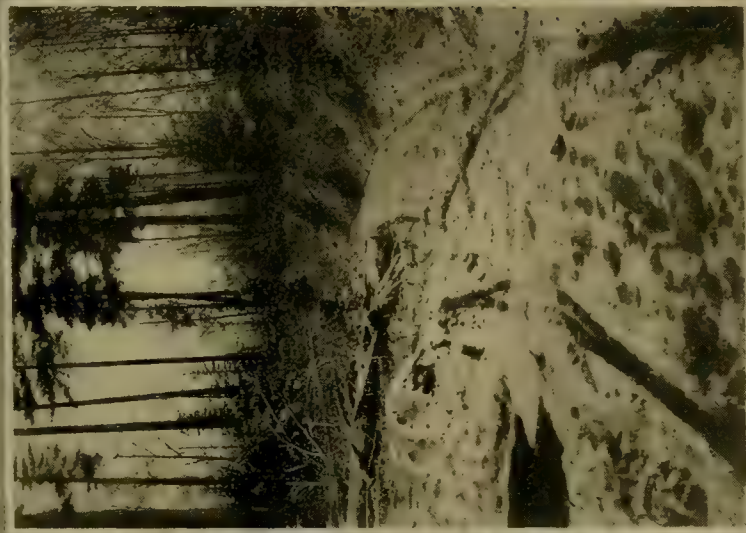
R. Secure from an optician or leaded glass establishment, two glass prisms, slightly wider than the lens mount. The flatter they are the less they will distort; about twenty degrees is a satisfactory angle. Secure them as shown by sectional sketch, using straw board and black paper. Then make a ring to fit over the lens mount and connect it with the prisms in such a way as to exclude all light from the camera except that which passes through the face of the prisms. The inner surface of this hood must be dull black. The paper which comes around plates answers nicely. If the ring which slips over the lens mount is lined with black velvet, it will exclude all light and hold firmly to the mount.

Sig. Place over lens, stop down well after focusing, and proceed as for any picture.

Doubtless the reader would like to see what a magazine writer looks like, so I send my photo in fear and trembling, for I am modest, also I am afraid the editor might turn me down and refuse to publish my picture; if he does magnanimously allow it to go in, the reader will realize what a hungry individual a writer is, but, when the remittance arrives, what a square meal a fellow can indulge in!



ME AFTER A SQUARE MEAL



VIEWS DURING MIDWINTER ON THE PICTURESQUE LAKE SHORE GROUNDS OF THE UNIVERSITY OF WASHINGTON, WHERE THE BEAUTIFUL EXPOSITION BUILDINGS WILL GROUP THEMSELVES AROUND A CENTRAL COURT. THE GROUNDS WILL BE BISECTED BY A BROAD THOROUGHFARE, RAINIER AVENUE, FROM ANY PART OF WHICH CAN BE HAD AN UNOBSTRUCTED VIEW OF SNOW-CAPPED MT. RAINIER.

These photographs, together with others on following pages, so designated, are from negatives by Miss ADELAIDE HANSCOM, the well-known artistic photographer, who removed to Seattle shortly after the fire. These charming examples of her skill were made especially for CAMERA CRAFT.

Photographic Possibilities of the Alaska-Yukon-Pacific Exposition Which Will be Held at Seattle in 1909

By C. H. E. ASQUITH

When, on the morning of Wednesday, June 1, 1909, obedient to the flood of electricity let loose by the President of the United States through a finger pressure on a golden button, the gates of the Alaska-Yukon-Pacific Exposition at Seattle swing open, there will then be presented to photographers of the world as fine an opportunity as has ever been offered.

Although the grounds of the world's fair will not be so extensive as



GREAT NORTHERN DOCKS, SMITH'S COVE, SEATTLE

S. S. Dakota and S. S. Minnesota, the largest freighters afloat, and the Oriental Limited, passing. Where rail meets water. This photograph is unusual, as the two vessels have never been in dock at the same time since. They are scheduled to pass each other in mid-ocean on their way to and from the Orient. It was taken before the Dakota made her maiden trip.

those of St. Louis or Chicago, they will, in their completed state, be far more worthy of the photographers' art than those of any exposition yet held in America. For, the ideal of the Alaska-Yukon-Pacific Exposition will not be the surpassing of all other world's fairs in size; gigantic expositions are no longer popular. The ideal that the management has kept before it is that of a fair that shall be a perfect gem; one in which the smallest detail shall, together with the stupendous construction on the grounds, form a perfect harmony of design, placing, surrounding, and coloring; one in which an unequalled jewel shall repose in a setting such as no monarch has ever dreamed.

The grounds of the Alaska-Yukon-Pacific Exposition, which are two hundred and fifty-five acres in extent, are located on the unused portion of the



CANOES AND YACHTS ON LAKE WASHINGTON

campus of the University of Washington. They border for more than a mile and a half on Lake Union and Lake Washington, the latter being the largest fresh water body in the Pacific Northwest. In their virgin state they possess everything to please the eye. There are tall stately giants of the forest, secluded nooks, gentle slopes and commanding terraces, unsurpassed vistas and beautiful stretches of shore line. In laying out the grounds and constructing the buildings every effort will be made to preserve Nature's own handiwork.

Twelve large exhibit buildings will form the nucleus of the exposition. Around these will cluster the State, foreign, concessions and other pseudo-exhibit structures. The plan of the grounds shows an unique arrangement. The principal buildings will be grouped around a central court two hundred feet in diameter, in the center of which will be a large geyser fountain. The main boulevard of the exposition, Rainier avenue, divides the grounds into approximately two equal parts. It is on a direct line with Mt. Rainier, of which an unobstructed view may be had from any section of the street.

Pleasure craft will ply both lakes, and the beautiful scenery that abounds on their shores will make many a tripod come out of its case in a hurry. The possibilities of excellent general views of the grounds and buildings from boats on the lakes will hardly be overlooked by either professional or amateur.

The photographic opportunities presented in a square mile of stately structures, broad boulevards, sweeping water vistas, with towering snow-capped mountain peaks as a background, will appeal to every man who has ever handled a camera. It will be only to the more expert photographer, however, that the more subtle shades of the picture will appeal, the bits of statuary, the different style of architecture, the individual exhibits in the various buildings, the cosmopolitanism of the streets in which the people of fifty nationalities shall move, each attired in national costume, the nightly glimmer of a million electric torches, and the thousand and one other features that are bound to be picturesquely visible when a million people from all



ALONG THE DOCKS—SEATTLE

parts of the world assemble for instruction and relaxation on the same square mile of ground.

The pictures that will offer themselves at the Alaska-Yukon-Pacific Exposition will be entirely unlike any other fair pictures. Take pictures of Chicago, Buffalo, St. Louis and Portland, and mix them up well and it would need a nice eye to distinguish by means of any difference in character or style of art, which belonged to which. The Alaska-Yukon-Pacific Exposition will be distinct, original, and unusual. The ideal of originality and beauty rather than conventionality and size assures this to the public.

As the name of the fair intimates, the object in particular is the exploitation of Alaska and Yukon and the countries bordering upon the Pacific Ocean. And these are practically about the only places on earth that remain nearly virgin soil to the artist with the camera. Central America and South America will send her commercial exhibits, but she will send in addition many odd ethnological specimens, many weird and curious articles borrowed from her chief museums, and will erect buildings of novel form and construction whose very likenesses are unknown to North America.

The mysterious East, the smell of which, as Kipling tells us, begins at Port Said and runs in an unbroken sweep to the Pacific, where the Japanese fishermen on the banks shout greetings to the men from Seattle and San Francisco on the line, where earth's oldest and most sleepy civilization meets

with her newest and most vigorous life—the mysterious East will be ransacked for her treasures, and Japan, China, Korea, Manchuria and the Straits Settlements and India will each send her best. The latest relics of the war, ancient articles, hidden for thousands of years in some dusty temple and brought to light only in the recent Japanese revival, queer human specimens from the heart of China and from the little known islands north of Japan, these and ten thousand other things that might be mentioned will all be gathered under the domes of the 1909 exposition.

But apart from the queer and wonderful things that will be seen at the fair, there will be other attractions for the photographer. The very construction of the fair, the taking of a bit of wild ground between two lakes, and turning it into a garden of palaces, fountains, streams, canals, and stately avenues in a few months, the very mechanical process is intensely and absorbingly interesting, and human nature, which is so fond of seeing the works, of knowing “how was it done?” will follow the progress photographs from week to week with intelligent anticipation. In the erection of the buildings—some of which are to be permanent—some of the latest engineering methods, methods that have never yet been tried on a large scale, will be used. The great derricks, the novel application of electricity that will be needed, the enormous weights to be handled and hoisted to great heights, the putting in of the internal machinery for the great geyser fountain, all these will have more than a passing interest, and the preservation of such scenes by means of the camera will have a scientific value as well as an artistic and a commercial one.

In the history of world's fairs past, a great deal of time and patience have been spent in the efforts to take good night photographs.

The exhibit buildings with their varied architecture outlined with glowing light, will afford fine opportunity to display one's photographic skill. Also will this be true along the lakes where the reflection of the thousands of lights will shimmer in the water. A feature of the night work that will be interesting will be the photographing of different objects from the brilliancy bestowed on the grounds by the illumination. This proved satisfactory work at the Lewis and Clark Exposition. Excellent negatives were secured of beds of roses, statuary, fountains, etc.

Preparations are already spoken of, too, for what might be classed as a more commonplace form of work. There are in the west many strong State societies, almost every State being represented by a society composed of native born sons or former residents of that particular State. These societies will, in many cases, see that a complete record is kept of the participation of their State. The New York society will photograph the New York building, all the New York exhibits, all the men connected with the fair in any capacity who were at one time New Yorkers, and anything in the Government exhibits that pertains in any way to the home State. This will make the nucleus of a fine State society museum. This idea, too, will likely be extended to the individual nations that exhibit, and each government will preserve by means of the camera the smallest to the greatest of the things that are exhibited from that country.



A WINTER SCENE IN SEATTLE

By ADELAIDE HANSCOME



LAKE WASHINGTON FROM THE EXPOSITION GROUNDS

By ADELAIDE HANSCOME

The taking of moving pictures has progressed rapidly in late years. At the Alaska-Yukon-Pacific Exposition every important happening will be recorded and preserved by means of the moving picture machines. The processions, the opening exercises of the fair by the President of the United States, the formal events on the days that are devoted in particular to some State or country, the championship events on the great athletic grounds, the motor car races, every event that has motion as one of its attractive features will be preserved for future ages, and the fair in after years can once more, by the aid of a lens and some electricity, be made to live and show to coming decades, the glories that are past. While the taking of moving pictures may not be strictly classed as photography, as such is understood by an art-photograph publication, still it has an important place in such an event as the Alaska-Yukon-Pacific Exposition.

The high observation tower, which will be one of the features of the fair, commands a view of not only the grounds but also the city of Seattle as well. From this great structure, as well as from the balloons that will be a prominent fair feature, some splendid bird's-eye views can be taken of the grounds, the city, and the miles of surrounding valleys, plains, and mountains. The photograph taken a few months ago for "Collier's Magazine" from a balloon, the bird's-eye view of New York City, has given a big impetus to this kind of photography, and there is no doubt but that it will reach a high perfection at the Alaska-Yukon-Pacific Exposition, particularly as there is everything in sight that an artist could desire, the fair palaces, snow-capped mountains in the background, Puget Sound, the great city, fresh water lakes, and a rolling view of country that stretches clear to the Canadian border.

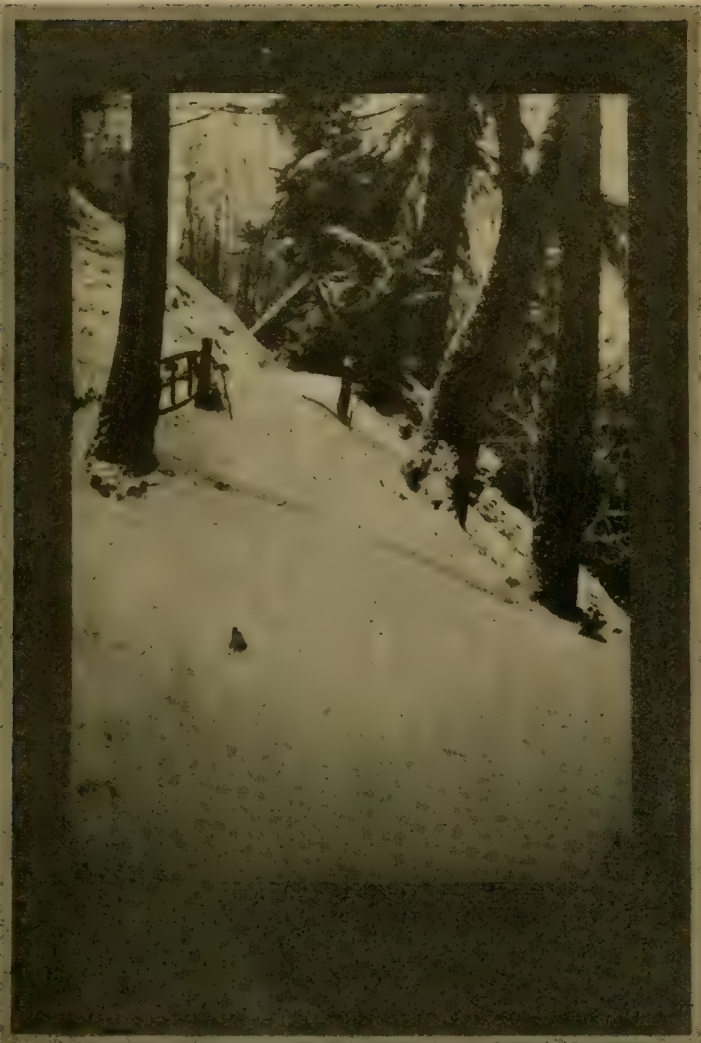
The city of Seattle itself, with its picturesque hills, its miles of waterfront on Elliot Bay, an arm of Puget Sound, where vessels from every part of the globe may be seen in its docks, its stupendous building operations—all will give the lens a chance for worthy reproductions.

Further, the visitor to the Exposition will have opportunities on his trip to and from Seattle for camera work in the scenic country through which he will pass. And the innumerable side trips from Seattle that will be taken by almost every traveler will offer additional alluring pictures that will be desired.

On the whole, the Alaska-Yukon-Pacific Exposition will offer the photographers of the world the greatest opportunity in recent years, and it is most gratifying to notice that already there is ample proof that this chance for artistic work will not be neglected. The beauty that will be the result of the judicious expenditure of ten million dollars will be preserved to posterity through the camera, and the fair's usefulness will thus have permanent existence.



SECOND AVENUE, LOOKING NORTH, SEATTLE.
A typical scene on this thoroughfare



A WINTER SCENE
IN WASHINGTON PARK, SEATTLE
By ADELAIDE HANSCOME



A WINTER SCENE
ON ONE OF SEATTLE'S
BEAUTIFUL RESIDENCE STREETS
By ADELAIDE HANSCOME



A SNOW SCENE
By ADELAIDE HANSCOME

Ammonio-Nitrate of Silver Printing Process

By PROF. O. V. LANGE

Ammonio-nitrate of silver, or as it is more commonly called, plain salted paper, is a process that has much to recommend it. Properly worked, its permanency leaves little to be desired, and once the few simple manipulations are mastered, the ease with which it can be prepared, the variety of tones that can be secured, and the facility with which one can adapt texture and tone in the support to their requirements, makes it a process most desirable. In addition to these advantages it has the further one, namely, that by increasing or lessening the strength of the silver bath, very soft or very hard negatives may be printed so as to secure the best possible results.

To deal with the subject exhaustively, covering the various methods of sizing, the many processes of toning and the like, would require more space than is at my disposal. For that reason I will suppose that the worker is to confine himself to the use of such stock as does not require sizing, and that he is satisfied with the warm and purplish blacks given by an ordinary toning bath, say one such as is used for Solio paper. In fact, this plan has been followed by myself except in a few cases where some special result was desired.

Formerly various kinds of rather thin paper were used, the process being the one employed in the early days of photography, giving place to the albumen process. I prefer and use for my own work what is called two and four-ply wedding bristol. A grade called Rhode Island bristol, obtainable at most paper warehouses, is also very good and comes in several tints. The surfaces of these are so hard and firm that the image does not seem to sink in and have a soggy appearance, as is the case with a softer stock when used without sizing. Other good papers which I have used are Byron & Weston's Super Royal, Argyle Parchment and Old Berkshire Bond.

Chlorizing is the first operation. For this purpose is used a solution composed of six grains of ammonium chloride to the ounce of water. This is cheap and keeps indefinitely, and the sheets are salted by immersing them for a minute or more. Fifty ounces make a convenient bath. The best practice is to immerse them slowly, so as to obviate bubbles and withdraw from the solution immediately. The sheets are hung up by clips and allowed to dry over night, or they may be allowed to become surface dry and then hung over a coal-oil or gas stove until bone dry, about fifteen minutes being allowed for this last, as it is not advisable to hasten the drying too greatly.

Silvering or sensitizing is the next process. Some workers do this by pouring a few drops of the silver solution in the center of the sheet and spreading it over the surface by the aid of a tuft of cotton. In my own practice I prefer to use a swab made by wrapping a piece of canton flannel about three inches wide and twelve inches long, around a piece of glass, pinning the end, and of course bringing the soft side out. Dipping the edge of this in the solution, it is very easy to distribute an even coating and do it very quickly after a little practice. This part of the work should be per-



Chinese Fishmonger

formed by gas or lamp light, or if day light is used it should be screened through a yellow curtain. Drying should also be done away from a strong light and the sheets should be so hung that a free circulation of air is assured.

Preparing the ammonio-nitrate of silver solution used in the silvering is a very simple matter. Add one ounce of nitrate of silver to seven ounces of water, and when the silver is dissolved, filter out the whitish precipitate. Pour out into a graduate a half ounce and to the rest add ammonia, drop by drop, stirring with a glass rod, until the brownish turbidity at first formed is just redissolved and the solution is again clear. Then add the half ounce of solution which was set aside and filter out the dark precipitate which will form as it is added. The solution is then ready to be applied to the paper.

Printing is practically the same as for Solio, except that it must be carried a trifle further, that is, considerably darker than desired in the finished print. The prints should be kept in the dark until ready for toning, or rather, for the preliminary washing in several changes of water to remove the free silver, which would interfere with the toning if not removed. An ordinary Solio toning bath can be used, but one of the best and most reliable baths is made by adding sufficient stock gold solution to thirty-two ounces of water to have it contain three grains of gold, and then add about half of a mustard-spoonful of bicarbonate of soda. This latter is added to render the bath just barely alkaline, this being determined with litmus paper. This should tone to a rich warm black in from ten to twelve minutes. The regular Solio bath should require about fifteen minutes. The prints should be kept apart in toning, so that they do not tone unevenly by lying in contact with each other. From the toning bath they should go into a tray of clear water, be washed or handled over once or twice, and from there thrown into the fixing bath.

Five ounces of hypo in thirty-two of water is about the right strength. Fixing should be thorough, and for that reason plenty of time should be allowed, and the prints must be handled over several times, in order that they may not mat together. Abundant washing should follow the fixing to the end that no hypo be allowed to remain in the paper. Ten or twelve changes of water during an hour will prove sufficient. There only remains to hang the prints up by clips and allow them to dry.

The ounce of silver recommended for the sensitizing solution is one of four hundred and thirty-seven grains. This gives a solution of a strength of about fifty grains to the ounce, and that is about right for ordinary negatives. Should it be desired to secure the best possible prints from hard and contrasty negatives, the bath should contain only about thirty-five grains of silver to the ounce, and for thin and soft negatives that lack vigor, the strength of the bath can be increased to eighty grains to the ounce. I would advise that the worker confine his experiments to the process as here given until confidence is acquired. The methods here outlined are those I have found entirely satisfactory in my own everyday work, and with ordinary care the worker can employ the same process with an amount of satisfaction and pleasure that will greatly overbalance the slight additional work of salting and sensitizing the paper.

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A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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No. 2

A Pacific Coast Exhibition Circuit

"Camera Craft" is desirous of hearing from representative workers in cities and towns throughout the Pacific States who are in favor of establishing a circuit over which a collection of prints may be circulated from time to time somewhat in the nature of a circulating exhibition. The California Camera Club will enter heartily into any practical plan of this character, and the Oregon Camera Club can also be counted upon to prove a strong factor. Seattle, Tacoma and one or two of our Northern cities should find a plan of the kind proposed an incentive to some effort, and there are California cities, like Los Angeles, Sacramento, San Diego and Stockton, that should make a good showing. Arizona, Colorado and Nevada cities would also be most welcome participants. It is not necessary that a full local organization with officers and permanent quarters be established, as this would not be advisable in many cases. All that is necessary is for two or more workers to get together and undertake the securing of a representative collection of good work and later arrange for the display of the collections reaching them from time to time. This last can be very easily managed by securing the co-operation of some local society of an educational or like character. Should the plan prove a success, it will no doubt make it easy to crystalize the local interest in many of the cities into a photographic club that will be of distinct advantage to the workers therein. May we hear from you all at the earliest possible moment so that prompt action may be taken?

Artiso School of Photography

The wonderful popularity of the Aristo Schools of Photography as held throughout the East is too well known to require comment further than to serve as an introduction to our recommendation that every photographer who can possibly do so should attend the one to be held in this city March 20th, 21st and 23d. The American Aristotype Company will send a number of experts, and, in addition, there will be their local representatives and demonstrators. Hirsch & Kaiser will also be represented by their corps of efficient employees. This Aristo School will afford an opportunity that photographers cannot afford to overlook, as can be seen by consulting the program, which is given on the last advertising page in the front of this issue. Look it up and arrange to be present.

Many photographers have been anxious to see the Aristo Lamp in operation, both for making negatives and printing, and this opportunity should not be overlooked.

Mr. Valentine on the Coast

F. H. Valentine, the able and efficient representative of G. Gennert, New York, has been visiting the local dealers recently, and, it is unnecessary to add, has made a host of friends, both for himself and the well-known house with whose goods he is so thoroughly conversant. His pleasing personality and courteous manner have resulted in definite expression of regret at his departure and a sincere wish that he will again visit this city at no very future date.

A Few Wise Saws From Our January Contemporaries

This month we again introduce a variation here, temporarily departing from our rule to publish only original matter, by inserting extracts from our contemporaries. In order that we might make no mistake in crediting these extracts we have selected them from the various editorial departments, the style further assuring us of their originality. We trust that our readers will appreciate this opportunity of becoming better acquainted with the efforts being made by our brother editors in behalf of our art-science to the end that full credit may be extended.

"The St. Louis and Canadian Photographer"—We sincerely hope the craft in general will experience a better business year in 1907 than was enjoyed by its predecessor." Whatever that means.

"The American Amateur Photographer and Camera and Dark-Room"—"This number represents many days' work on the part of four editors of wide photographic experience and the most varied mental tastes." Many thanks for the explanation.

"The Photo-American"—"From the great army of miscellaneous magazines, as well as from the daily papers, we shall cull items of salient interest to photographers in general and amateurs in particular, in order that our readers may be made cognizant of every achievement of one of the most potent factors in the progress of modern civilization." This seems to be the popular way of making up a photographic magazine.

"Western Camera Notes"—"We can give you in this magazine just exactly what you wish if you will only make the wish known." Oh, joy!

"Wilson's Photographic Magazine"—"We are afraid, however, that the editor of the 'Photo-Era' has recently joined an 'Areo' club and has been indulging in some aerial flights." Now, Brother Chalmers, one of the four with wide experience, is wiser; he gives the explanation: "Touch: Something produced by the touch of the hand."

"The Photographer"—"The advertisers in 'The Photographer' make, one and all of them, the best goods possible." Isn't that nice of them?

"The Photo-Beacon"—"With a longer focus lens the line of the mouth is straightened and very much more pleasing, and the general effect with the longer focus lenses is that of contemplation." No more trouble to photograph the baby now the secret is disclosed.

"The Photographic Times"—"Is it any wonder that the poor beginner attempting to solve such fearful mysteries as this, finally gives up and is led gibbering to a padded cell." Is it really as bad as all that?

"The Camera"—"It is possible to make polychromatic plates (that is, we have done it ourselves) which work without screens and without prolonged exposure." Let us hope they did (that is, they are) or rather, that they will.

"Professional and Amateur Photographer"—"If others have succeeded by adhering to certain ideas, so can we. When we hear a successful man make a certain claim, they should have weight with us." They ought to, but will it?

The Amateur and His Troubles

By FAYETTE J. CLUTE

Advantages of Ozobrome

Briefly stated the Ozobrome process enables those who like carbon as a printing process, to indulge their taste in that direction without the disadvantages with which the process has heretofore been hampered. Carbon required daylight, it necessitated the making of a large negative if prints were wanted larger than the original one, and the final picture was reversed unless double transfer was undertaken. In addition to this a negative of at least a fairly good quality was demanded. With Ozobrome the work can be done at night, the size of the print is limited only by the facilities for enlarging, and the print is not reversed. Furthermore, good prints can be made from negatives that would give very indifferent results in the straight carbon process. One has simply to use the negative with the grade of bromide paper that will give the best print and the Ozobrome print will be proportionally satisfactory. A thin negative, one well nigh hopeless for a carbon print, may be printed on Carbon Velox, which forms the base of the carbon making up the Ozobrome print. It is essential that the bromide print be a good one, as the success of the finished product depends upon the good technical quality of this base. The process is a most interesting one, and its wide range of results, all under perfect control, makes it a process that appeals very strongly to the worker who desires to secure the best possible results with the least proportionate amount of labor.

Dark-Room Practice

I was in the dark-room of an amateur photographer the other day, and his practical method of doing a few simple things was explained only by his information that he had taken a course in chemistry under an old practitioner and could not help but profit by his example. The first thing that I noticed

was that all the solutions were labeled with the formula giving their composition and also a date showing their age. This reminded me forcibly of several solutions on my own shelves that I would like to have this information concerning. When one mixes up a solution he feels that he is in no danger of forgetting exactly what it is and when it was prepared, but a few weeks, and doubt ripens into distrust most rapidly in such cases. Despite the fact that all the labels were protected with varnish, this friend always grasped a bottle by the label side in picking it up, so that none of the solution might run back and damage the lettering thereon. He explained that this was done almost instinctively as the result of making it a practice in his laboratory days. He went on to say that a bartender always did the same, and when he set out a bottle for the customer he always placed it so that the latter would do the same in pouring out the solution—or whatever the bottle contains. It is not necessary to rush off to the nearest irrigation plant to investigate this matter, as my informant is reputed an authority on such matters. But to return, the labels were common writing paper stuck on with ordinary gum, allowed to dry, and then given a coat of very thin glue to make the paper impervious to a coat of varnish which is applied last after the glue is thoroughly dry. A varnish made with linseed oil is more desirable than a spirit varnish as being less susceptible to the action of alkalis and alcoholic solutions. Another thing I noticed and that was the preference he seemed to have for those with a thin, projecting lip. He poured a few drops from one of these, and then from one of the ordinary kind just to show me the difference, and that was all I needed. The style of handsome glass stoppered bottles which I valued so highly were entirely missing on his shelves, although he said there was a type of bottle known as "German glass," flat stoppered, that had glass stoppers and was even better for pouring

from than the ones he used. He objected to glass stoppers on the score that they had such a bad habit of sticking and a good cork of adequate length was practically as tight fitting. His dry chemicals were in the ordinary wide mouthed bottles in which they were sold, but he had taken the precaution to replace the thin corks shayed off flush with the top of the mouth, with full sized cork stoppers. These large corks are called "bungs" by the trade, and should be asked for by that name. A request for corks is likely to bring forth a supply of the flat kind that one wishes to avoid. To overcome the difficulty of pouring a definite amount from certain bottles, they were fitted with what is practically a fountain pen filler, although his were made somewhat longer by drawing out to a point a few pieces of glass tubing and fitting them with small shutter bulbs at the top. These glass fillers were easily graduated to the desired amounts by picking up the requisite amount measured out in a graduate, and then scratching a mark on the tube at the indicated height. All one had to do in order to measure out a certain quantity was to pick up some of the solution, press the bulb until the contents were lowered to the scratch and then discharge the remainder where wanted. The ease with which he could make up a developing solution without soiling the graduate with other than clean water was such that the method needed no further commendation. Other hints were absorbed, but the above will suffice for this time, I trust.

Developing Light for Orthochromatic Plates

In reply to a New York correspondent I would say: Unless you are using panchromatic or the red sensitive plates, any good ruby light ought to be safe, that is, with ordinary precautions taken not to expose the plate too long or too close to the light. Possibly the best way would be to make yourself a couple of glasses by coating ordinary glass with a ten-per-cent solution of gelatine containing a little chrome alum and drying them, or one can use ordinary dry plates from which the silver has been fixed out or negatives from which the image has been reduced. Stain one with a five-per-cent solution of methyl violet, to which has been added one per cent of borax and the other stained in one per cent of naphthol orange. The first should be left in the solution for

ten minutes and then set directly up to dry. The second allowed to remain but half that time in its solution and then rinsed before drying. The two bound together with their emulsion sides in contact will give a deep red that will be quite safe for ordinary orthochromatic plates. If my correspondent wants to be still more certain of the safety of his plates I would advise that he get a sheet of double flashed chromium green glass and place this over the tray as soon as the plate goes into the solution. As the red in the lamp cuts out all except the red, orange and yellow, and the green cuts out the red, orange and most of the yellow, the plate will practically be in total darkness.

"Fuzzy-Types"

A letter from an Iowa subscriber asks how he can secure the type of pictures which he calls "fuzzy-types," and which he claims are so popular at exhibitions and salons. As a rule the effect is due to enlarging from small negatives and avoiding too sharp a focus in the procedure. Sometimes the effect is secured by using a large stop when making the original negative and having only one plane of the picture sharp. Our correspondent should bear in mind that pictures intended for the walls of an exhibition are not intended to be viewed from so close a point as smaller prints intended or likely to be held in the hand for examination. Furthermore, it is not a settled matter that any particular eccentricity of treatment will make a picture more popular with exhibition judges than it would be otherwise. Slight diffusion where judiciously introduced often prevents the biting sharpness of a photograph from spoiling our enjoyment of its pictorial qualities by its insistence.

Air Spaces in Lenses

This is a question that comes up quite often, and I can hardly do better than explain that a leading German photographic society put the question to several of the most prominent opticians in that country, with the result that the consensus of opinion indicated that any difference between a separate lens objective and one made up of cemented combinations was negligible. They held that the loss of light by reflection in the one case was balanced by the loss by absorption in the other, and if either form had an advantage it was so small that it was of practically no importance.

Faded Album Prints

A correspondent in Illinois has some faded albumen prints that he wishes to restore and then copy. The fact that they are badly faded indicates that the image is composed to some extent of sulphide of silver, and this cannot be bleached for subsequent darkening. This can be determined by immersing them in a solution of bichloride of mercury, to which has been added a little potassium bromide. Should the prints bleach out it only remains to develop or blacken them in any of the modern developers after having well washed out the mercuric salts. Should they fail to bleach, as will no doubt be the case, it only remains to make the best possible job of copying them. As the image is a pale yellow color it is advisable to use a blue or violet screen, thus making it photographically black. Such a screen is easily made by fixing out a lantern slide plate and then staining the emulsion a deep violet with a solution of methyl violet. The deeper the color the blacker the faint yellow image will appear to the plate and if the plate used be a slow one and care exercised in developing, the results will surprise one not familiar with this method of working.

Tank Development of Plates

The user of films is inclined to credit the user of plates with a disregard of up-to-date methods and the non-appreciation of later-day conveniences, but in this he is somewhat in error if we may judge by the popularity of the Ingento Automatic Developing Tank. The rapidity with which this most efficient piece of apparatus has sprung into favor indicates that the time is not far distant when the tank method of developing both plates and films will be well-nigh general. One of our former associate editors has recently used one of these tanks for some special work which he did not wish to trust to other hands and which he could not find time to develop in the old way, and he is enthusiastic over the method. Our own experience with it confirms his praise, and to add to the convincing array of testimony in its favor one has but to inquire of his friends as to their experience. While, of course, there are as yet many who have not tried the plan, we have found a large number who have, and they are unanimous in their expressions of commendation. Not a single user has been found who was not en-

thusiastic in his praise. Get a descriptive pamphlet of your dealer and ask him to show you one of the tanks. If he cannot do either, write direct to the manufacturers, Burke & James, Chicago, who will gladly furnish full particulars, including the address of a dealer in your city or nearby town who has the tanks on sale.

Exposure in Copying

Knowing the correct exposure for a certain amount of reduction or enlargement, it is easy to calculate the necessary exposure for other proportions by using the table given below, which was offered by Henry W. Bennett in the "Photographic News" about a year ago. The first column indicates the scale and the second the relative exposure, copying same size being given the normal factor as the exposure in such cases is more likely to be known for the conditions under which one works as to light, plate and the like:

Scale	Relative Exposure
$\frac{1}{8}$	$\frac{1}{8}$
$\frac{1}{4}$	$\frac{2}{5}$
$\frac{1}{2}$	$\frac{9}{16}$
$\frac{3}{4}$	$\frac{3}{4}$
1	1
2	$2\frac{1}{4}$
3	4
4	$6\frac{1}{4}$
5	9

It is of course understood that in using this table no attention is to be paid to the actual change made in the value of the stop through the increased extension of the camera. The table is simply a convenience intended to do away with the necessity of determining the exposure through calculations based on the such new stop values. For example, with the lens racked out to double its focal length, as must be the case in copying full size, the original f-16 becomes f-32, and indicates that an exposure is required four times longer than when the lens is at its exact focal length from the plate, as it is when focused on some distant object. In using the table above, one must overlook this matter, and assume that any and all of the stops retain their normal value. The worker, knowing that the right exposure to secure a copy one-fourth the size of the original is ten seconds with stop f-8, desires to secure a copy twice the size of the original, it will be necessary to give an exposure that is to ten as two and one-fourth is to four-tenths, or fifty-six and one-fourth second.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

How to Predetermine the Color of Sulphurized Bromides

Those of us who have employed the method of making toned bromides by the bleaching with ferricyanide and re-developing with sodium sulphide are aware that the color so obtained is variable. According to Colville Stewart this variability is solely dependent on the length of time that the bleaching solution is allowed to act. Given a twenty-grain ounce solution of potassium ferricyanide, acting for twenty seconds, and the result will be a warm black; thirty to forty seconds, it will be chocolate; sixty seconds, brown; and two minutes, reddish brown.

Preventing Harshness in Bromide Enlargements

We have recently had inquiries concerning the Sterry process of control, which was described in these pages at the time of its discovery. In a recent number of "Photography," W. Howard gives more ample details than those contained in the early description, and from this paper I abstract the following passages, which will offer all the necessary information to our readers. "In outline the method is as follows: We will suppose we have a landscape negative with a good cloud effect in it, but that the strength of contrast in the negative is such that if we expose the enlargement long enough for the cloud to acquire a proper value, the shadows in the landscape will be much too dark. This is an experience such as most photographers must have had. To deal with such a case we put the negative into the enlarger and make a trial exposure on a strip of the bromide paper in the usual way. The object of this trial exposure is to find how

long we must give to obtain the detail we require in the high lights; in this case it will be the clouds, and we must learn from our trial strip the exposure that is required to give us an enlargement in which the detail in the sky is correct. We can ignore the shadows at this stage altogether. As it is best to use a developer weaker than usual when this method is being employed, in order to prolong development, it is best in my opinion to dilute the usual developer to twice its bulk with water, employing this both for the trial strip and for the final enlargement. A full-size sheet of paper is then given the exposure so found to be correct for the high lights, and we proceed to treat it in the manner described by Mr. Sterry, before developing the image. This treatment must, of course, be carried out in the dark room.

"The way the correct exposure is ascertained is described above and need not be repeated. But it is important to realize that the correct exposure must be ascertained by actual trial without the bichromate if trouble, time and bromide paper are to be saved. The one thing that must be done is to find the right exposure to give the most delicate details in the high lights, and when this has been discovered a full sheet may receive it and is then ready for the bichromate. Chromic acid is more powerful for this purpose than is potassium bichromate, but as most photographers have the latter while the former is less common, and, as it certainly works just as well, the bichromate is that which I should advise. I always use it myself, although in the past I have substituted a solution of five grains of chromic acid to the pint of water for the bichromate bath given below.

"The extent to which the treatment holds back the shadows while allowing the high lights to develop, depends upon the strength of the bichromate solution,

the length of time the enlargement is left in it and the extent of washing which it receives after bichromatising and before development. As variations in all three have the effect, it is best to decide upon a certain time of immersion and a certain washing and always to use these so that the influence of these factors may be constant. It is only by working in this way that we can hope to have the result fully under our control, and can avoid the waste of a good deal of paper. We then merely vary the strength of the bichromate bath to secure greater or less softness to suit each particular negative. Three minutes' immersion, followed by a half a minute in a dish of water, will be found most convenient in practice. The best way of using the bichromate is to keep a stock solution made by dissolving one ounce of bichromate in water to make ten ounces. A fairly vigorous negative, one which gives a good, strong platinum print, will require treatment with a bath containing ten grains of bichromate to the pint, so we may take fifty minims of the stock solution, dilute it with water to half a pint, and leave the enlargement in this for three minutes. The bichromate is then poured away, the dish filled up with water for half a minute—it is well to rock it while counting thirty—the water is then poured off and the developer poured on. The diluted bichromate may be used over and over again if desired, but it costs such a trifle that unless a number of similar enlargements are all being made at one time, it is better to pour it away.

"The developer is not important. I have used metol-hydroquinone, rodinal and amidol in this process, but, on the whole, I prefer the amidol formula given by Messrs. Wellington and Ward in their hand book (but with twice the water mentioned below, as already pointed out). The bath is made of—

Sodium sulphite	650 grains
Amidol	 50 grains
Potassium bromide	 10 grains
Water	 1 pint

These are dissolved in the order named; two pints of water being used when the bichromate method described in this article is being employed. The treatment will be found to hold back the development and the detail will be visible all over

the print before the shadows are too dense. The enlargement will then go on, gradually increasing in strength until the photographer decides that it is vigorous enough, when he pours off the developer, rinses the print for a moment and places it in the usual acid-hypo bath to fix. It is best not to use the developer for more than one enlargement, as some of the bichromate is carried into it in the paper and its action a second time of using is affected thereby. Should the softening effect have been carried too far the bichromate solution the next time should be more dilute, or vice versa. A few mistakes may be made in this respect at first, but it is quite easy to learn to recognize the strength of solution needed in each case, especially as the developing process itself possesses a certain latitude, longer developing tending to counteract the effect of too strong a bichromate solution. The treatment with chromic acid is precisely similar, except that there is no chance of the paper getting stained, such as may occur when a strong solution of the bichromate is used.

"There should be no strain. The acid-hypo generally removes any possible bichromate stain, but if it does not yield to the treatment the print should be given a separate bath of a saturated solution of alum. This is to be applied after fixing and thorough washing, and must be followed by thorough washing. The print should be left in the alum until all stain has gone.

It is only in very exceptional cases that this alum treatment will be found necessary. Those who have tried this comparatively simple process will be surprised at the ease and certainty with which it may be used and the softness and gradation that may be obtained by its means from prints which in the ordinary way are quite unsuitable for enlarging."

Mercury Intensification

It was shown by A. Hadden, in an important paper in "Photography," that it is not possible by ordinary washing to remove mercury which does not go towards the intensification of the image. After bleaching a negative in mercuric chloride, therefore, it is necessary to wash it not merely in water but in dilute

hydrochloric acid. The acid will remove the mercury where plain water fails, and this is the course generally followed. It may not be so well known that the mercury salt is more soluble in a solution of ammonium chloride than it is in water alone. (It is for this reason that some formulae for an intensifier give both mercuric chloride and ammonium choride in the bleaching solution.) According to "Apollo," it is possible to take advantage of this increased solution in washing after bleaching. The negative is rinsed and is then placed for five minutes in a ten per cent. solution of ammonium chloride. A second bath is given for the same time and then the washing is finished with plain water. It would be interesting to compare the efficacy of ammonium chloride with that of hydrochloric acid as far as getting rid of the mercury is concerned.

The Toning of Bromide Prints

This is a subject in which interest never fails, and I give here some notes from the German work on the subject by Dr. Sedlazeck that may prove useful. Dealing with the well-known instability of uranium toned prints, he points out that the uranium nitrate forms a combination with the gelatine of the print that later undergoes changes. This may be prevented by the fixing of the gelatine by ammonia alum. To this, however, hydrochloric acid must be added or toning will not occur, and lastly, to help in preserving the bath, potassium oxalate is needed. The following are his formulae for four tones of brown:

	Deep Brown	Warm Brown	Brown	Red Brown
	Min.	Min.	Min.	Min.
Hydrochloric acid, 10 per cent solution	10	3	....	....
Uranium nitrate, 10 per cent solution	50	50	50	50
Potassium ferricyanide, 10 per cent solution	20	20	20	20
Potassium oxalate, 10 per cent solution	50	50	....	....
Ammonia alum, saturated solution .....	....	100	...	100
Rochelle salts, 10 per cent solution .....	....	....	70	50
Tartaric acid, 10 per cent solution .....	....	....	10	50
Water	2 oz.	2 oz.	2 oz.	2 oz.

Finally all these browns may be turned into a very deep and permanent brown by immersion in a bath of

Sodium sulphite	5 grains
Hydrochloric acid	2 minims
Water	4 ounces

Development of Negatives Taken Through the Glass

Gaedicke's "Wochenblatt" has an account of a method of developing negatives taken through the glass for the carbon or photo-mechanical processes, that is novel and offers some decided advantages. Under ordinary circumstances the shadow detail lies nearest to the glass and is therefore reached last by the developer, while the high lights penetrating nearer to the surface are first reduced and acquire undue density before the shadows receive any deposit. This defect is overcome by the writer, M. Bayron, in a simple way. He first soaks the plate in the alkaline half of the developer for four minutes. It is then given a rapid washing which removes the alkali from the super-process of the plate, which is then immersed in the reducing half of the developer. As the alkali has been washed out of the upper surface of plate (to which the high lights have penetrated) no reduction takes place until the solutions meet in the deeper layer where the shadow detail is found. In this way development of all parts of the image commences simultaneously and the growth of density in the high lights, as the alkali diffuses outward, can be stopped readily by removing the plate to the fixing bath. Moreover, the writer claims that, also, under normal circumstances, the prior use of the alkaline solution yields more detail and softer negatives.—"Photo Revue."

The Straight and Modified Print

There is still a misunderstanding on the subject of the straight print as opposed to the modified print. Some champions of pure photography, as it is called, will even deny that a modified print is a photograph at all. For my part, I believe that if the X deposit forming an image is built up by the action of light, under the shadow of another image, transparent, and also due to light action, the result must be a photograph, whatever modifications the photographer has thought proper to introduce amongst the relative proportions of the deposit.

What we call in French "l'intervention" consists in purposely adding to or subtracting from certain parts of the photographic deposit. In the case of addition, thickness

will be identical in substance to the primitive deposit (glycerine-developed platino-type and Rawlins' process). This practice of intervention forbidden by pure photographers when applied to the positive print, is recommended by the same school when applied to the negative, and is then called intensification or reduction, general or local. Its final effect is similar to that of the positive intervention, viz., modification in the general or local thickness of the positive deposit. The whole question lies in this diminutive nutshell.

Straight results or modified results—one has to choose. It stands to reason that a genuine straight photograph must owe every subsequent transformation to the first action of light on the film of the negative. This negative must neither be intensified nor reduced—no paint must be dabbed onto its back—no pencil strokes on its face, no shading to part of its surface during exposure must be allowed. The same strict rules must be applied to the development, if any, of the positive print. For if we admit that the faking that photographers have indulged in for the last fifty years is legitimate, but that similar faking under other names and by more effective methods is not, we are acting like overgrown children.

I maintain that if I have the right, as a photographer, to lower the density of part of my negative with Farmer's reducer, I have the equal right not to use the reducer and to darken the corresponding part of my positive print by piling on pigment with the Rawlins stenciling brush; that if I have the right, as a photographer, to dab color on a definite portion of my negative in order to add to its density and thus create a white spot on my positive print, I have an equal right to leave my negative alone and to wipe off the colored gum deposit on my print on the corresponding spot and for the same purpose. Words will not stand against facts, and these facts, I believe, are in logical sequence.

The limit? Well, there is no real limit except extreme black on one side and extreme white on the other. For nobody, except a few professional photographers and those of no very high order, has ever attempted to paint in a dark portion of his print or to add Chinese white to his high lights—the result is too obvious and too ugly. When we read of a print "entirely due to hand work" we simply do not believe that a jury of sane men would admit an oil or water-color painting

amongst photographs (for that is what the expression means), and we pass on.

You will say that the practice of intervention is dangerous? Not more so than the use of straight photography for pictorial aims. This may sound paradoxical, but I believe it is just as useless for a man to attempt art through purely mechanical means as it would be foolish for an astronomer to choose gum bichromate for printing the chart of the Milky Way.

Do not say that Nature being beautiful and photography being able to reproduce its beauty, therefore photography is Art. This is unsound. Nature is often beautiful, of course, but never artistic "per se," for there can be no art without the intervention of the artist to play upon. Straight photography registers the theme, that is all—and between ourselves, it registers it indifferently.—Robert Demachy, in "The Amateur Photographer."

Light Tones in Portraiture

All of us who are familiar with exhibitions must have admired the charming child studies of Will A. Cadby, with their delicacy and feeling of sunshine. Not a few have essayed like effects only to find that the results are not easily attained. In the January "Photographic Monthly," Mr. Cadby gives a very full account of the proper procedure, which should be read in full. Speaking of lighting, he says:

"But to come to portraits. With them we have not to wait for favorable afternoon lightings to get the effects we are discussing. Given a window through which the sun does not shine and a suitable subject, we can arrange them. The beginner should try first on a sitter whose clothes and complexion possess a generally light tone. Having secured such a model, we must next consider the very important subject of lighting. Instead of following the directions usually given in photographic text books for the best position for the sitter to take up in an ordinary room, we must, if we would seek very light effects, boldly strike out in a new direction, and place our sitter directly opposite the window, but some twelve or fourteen feet back from it. A portrait taken in this position seldom needs a reflector. The camera will be used close to the window. The light from all windows except that opposite which the sitter is placed should be excluded. Those who have not tried this very direct form of lighting will probably be surprised at the short-

ness of exposure necessary to obtain quite good negatives, especially with light subjects. Some of my exposures were given only a third of a second exposure in a not exceptionally light room, but in these cases it is hardly necessary to add that fast plates and large aperture were used. Now, if the photographer who, we will suppose, has followed the foregoing directions, looks at his sitter through the camera, he will notice that the lighting is very flat, that dark shadows are nowhere to be seen. This is just what we require for our purpose. But incidentally it would be well to remark that this flat lighting does not suit every type of face. Broad, flat features may be rendered even broader by its influence, for unless very correct exposures and careful development are carried out, the lights may play tricks where the tones are so nearly alike."

A dead white background is recommended, which in the case of full-length studies is to be joined up with a light floor by means of a piece of stretched flannelette. Exposure is to be full and development effected with a weak solution.

When is the Fixing Bath Exhausted?

Messrs. Lumiere and Seyewitz publish the results of experiments to determine this point. Starting with a fifteen per cent solution of hypo they find that about a pint of such solution will fix twenty-seven 5x7 plates without danger of leaving insoluble hyposulphite of silver in the film. An acid bath would only fix about sixteen, but if chrome alum be added it will fix twenty-one. The exhaustion of the bath may be recognized by placing a drop thereof on white blotting paper and exposing it for a while to moist air (in daylight). If it discolors, the bath should not be further used.

Stereoscopy of the Heavens

In the "Photographische Rundschau" Prof. Neuhauss reviews the astronomical stereograms recently published by Prof. J. A. Barth, and makes many interesting remarks on this fascinating branch of photography. Speaking of the moon, he says: "Here the conditions are individual. As is well known, the moon always presents the same face to us, which would seem to preclude stereoscopic exposures. But a certain pendulum movement (of the satellite) comes to our aid. Originally the moon turned on its axis. In the course of eons, the movement grew slower

until it ceased. But even now it is not entirely at rest. As a wheel set in motion swings first in one direction and then in the opposite before entirely stopping, so likewise does the moon. By utilizing this varying relation of the lunar surface to our own, stereoscopic pictures can be produced. Dr. Barth's collection contains two such moon stereograms. With wonderful clearness we see the immense gigantic mountains rise and the awful chasms yawn, against which the most terrible of our Alpine abysses are mere dwarfs.

"We come to Saturn and see him, together with two of his moons swinging free in space. The exposures were made on two successive evenings. In consequence of the movements of our earth and of Saturn we see that planet as from a different position on the second exposure. When we combine the two views in the stereoscope it is as though our eyes, viewing the planet, were separated two million kilometers. We thus gaze with the eyes of a giant into space and see Saturn and his moons floating free and far from the fixed stars."

In another paragraph, speaking of the value of these stereograms, he quotes Prof. Wolf to the effect that they render easy the solution of hitherto difficult problems and that in the case of the moon's surface one can recognize at a glance what otherwise could only be ascertained by years of calculation.

Distortion With an Anastigmat

A correspondent writes to explain that he has seen some group pictures taken by a professional in his town, using a high priced anastigmat, in which the heads near the side of the plate are badly distorted, and this had led him to doubt the advisability of purchasing such a lens in preference to a rapid rectilinear. The distortion of which he complains is not the fault of the lens, but rather of the use to which it was put. It was no doubt used at an extremely wide angle. An anastigmat is much more fully corrected than any other form of photographic objective, and it is due to that fact that it can be used on so much larger a plate than the rapid rectilinear of the same focal length. Using it at such a wide angle gives the so-called distortion of perspective. Could the rapid rectilinear be used in an equally large plate it would be found that the results were even more unsatisfactory near the edge of the field.

Club Notes

Photo-Secession Exhibition

The exhibition now on the walls of the Little Galleries of the Photo-Secession is composed of twenty-three pictures by Baron A. De Meyer; a like number by George H. Seeley. The exhibition opened January twenty-fifth and closed February twelfth. The showing is one of the best of this series of remarkable exhibitions which are receiving more and more attention as their high qualities are becoming known. The opportunity afforded of studying these fine pictures should not be allowed to pass unaccepted by those in a position to avail themselves thereof, and the Photo-Secession should have the thanks of all interested for their work in making such an exhibition available.

Chicago Camera Club

We have just received one of the characteristic notices sent out to members of this wide-awake Club, which reads as follows:

"Meeting, February 14, 1907, Smoker and Guest Night, Northwest University building. Bring your smokes in one pocket, some good prints in the other and your friend by the collar, if necessary, to get him here. We will have some 'good music, show some slides, talk over our prints, and generally have a good time. That man you are hoping to get in as a member will enjoy it.

The Club held its annual dinner on the evening of January 10th, with such happy results that the dinners will hereafter be on the program quarterly. February 7th at the regular meeting at their quarters in the Northwestern University building, there was shown the exchange set of slides from Pittsburg. The slides were exceptionally good and a full attendance enjoyed the evening. February 28th will be "School Night," a demonstration or tank development being the principal feature. The Club is having a very successful year, adding to its membership constantly and keeping up the general interest with

an excellent program of lectures, demonstrations and print exhibitions.

CLARENCE B. HALE, Secretary.

Another Novel by Mrs. Wharton in Scribner's

"Scribner's" is particularly fortunate in its list of writers and in the exceptional interest of its contributions for the coming year. The fact that the serial story for 1907, "The Fruit of the Tree," is to be by Mrs. Wharton (whose "The House of Mirth" has already sold nearly 200,000 copies in book form) will undoubtedly attract a great number of readers. Speaking of Mrs. Wharton, "The Atlantic Monthly" says:

"The mere thought of another novel sets the appetite on edge; one recalls the eagerness with which readers awaited the next Thackeray or Dickens."

Repairing Porcelain

A correspondent has broken a favorite washing tank made of porcelain ware, and wishes to know if it can be repaired. He has, in the past, used a cement that he purchased from a street vender, but he no longer has a supply, and his street vender has departed for other fields. This cement which these gentlemen pass out is, as a rule, composed of plaster of Paris sifted through fine muslin and mixed with a strong solution of shellac in alcohol. It is an excellent cement for the purpose, and I can advise nothing better. The two edges to be united should be well squeezed together and held in that position until set, the excess being wiped off in the meanwhile, as there is liability of injuring the surface of the porcelain in attempting to remove the cement after it has set. A good way to ensure good contact of the broken and cemented edges is to pass a stout cord around the article, inserting blocks of wood where necessary to give the pull the right direction, and then twisting a small stick in the cord to secure the desired strain.

Our Book Shelf

"Instruction in Photography"

This book, by Sir W. De W. Abney, needs no introduction at our hands further than to advise that the eleventh edition is on the market after having the matter revised and reset throughout. The volume is one of the most thorough and exhaustive books on photography in the English language, despite the fact that it is by no means bulky, although it contains almost seven hundred pages. This is accomplished by eliminating all except that which is essential and of a practical value. This edition was delayed by the editor, who says in the preface: "The previous edition, though a large one, was exhausted in a shorter time than I expected, and I regret that, owing to circumstances, the present one was not ready at an earlier date." This previous edition, it might be well to explain, was brought right up to date by the introduction of much new matter covering lenses and also in the chapters devoted to the theoretical side of photography. This last edition, the eleventh, in addition to being entirely revised, contains alterations, additions and corrections, the most important being those made covering color photography. The book is a thoroughly practical exposition of every phrase of photographic practice and it is hard to locate a superficial or unnecessary sentence between its covers. Price, cloth covers, \$2.50. J. B. Lippincott Company, Publishers, Philadelphia, Pennsylvania.

"The Art of the Dresden Gallery"

This, the latest addition to the handsome series, "The Art Galleries of Europe," gotten out by L. C. Page & Company of Boston, is a worthy addition to the preceding volumes. The author, Julia de Wolf Addison, has a most entertaining style that combines anecdotes and stories in the lives of the painters with an interesting presentation of facts concerning their work and their history in a most pleasing manner. Numerous reproductions in tint of masterpieces embellish the volume and the art criticisms offered are as instructive as they are complete and exhaustive. The author is one whose name at once inspires confidence in the subject matter of the book and the subjects, in-

cluding as they do, the work of such artists as Raphael, Correggio, Titian, Tintoretto, Salvator Rosa, Murillo, Velasquez, Claude Lorrain and a score of others, furnish full scope for her charming and instructive writing. The book is one that will interest every photographer desirous of studying the work of the old masters with a view of improving and learning from their examples, showing as these reproductions do, some of the most characteristic productions of the world's best artists, both old and new. Price, in handsome cloth, \$2.00. L. C. Page & Company, Publishers, Boston, Massachusetts.

"Brush and Pencil" for January

This, the current issue of that charmingly illustrated exponent of all that is good in graphic art, comes to hand replete with its usual wealth of good illustrations and most interesting text. "Brush and Pencil" should find especial favor with photographers who appreciate the artistic possibilities of their material and as a source of inspiration and as a furnisher of incentives, its monthly visits would seem to be ideal. Each issue contains about fifty illustrations, nearly if not all of them being such as will well reward the photographer who will but study them. Yearly subscription, \$2.50. The Brush and Pencil Publishing Company, 4709 Evans Avenue, Chicago, Illinois.

Photography in Esperanto

"Foto Revuo Internacia, Monata Revuo Kun Ilustrajoj" is a new photographic magazine printed in both Esperanto and French, parallel columns being used. The matter is well selected and of the best and most instructive character. The first number is dated October, 1906; it is edited by Charles Verax, and is published by Charles Mendel, 118 Rue d'Assas, Paris, France. The subscription price is one dollar a year, and we would advise every reader of either language, or anyone interested in photography and desirous of taking up Esperanto, to become a subscriber. The language is becoming popular as an international one, several very enthusiastic societies devoting much effort to its popularization.

Notes and Comment

Vanadium Toning of Bromides

A correspondent has been trying to follow the directions given by Mr. Somerville, the English authority on bromide work, as quoted by one of our American journals some months ago. Despite the fact that he followed the directions very closely, the prints not only refused to tone but the finer detail was gradually eaten away, as the prints were allowed to remain in the solution. Mr. Somerville discovered, after the original publication of his process, that difficulties were to be expected and later advised that the complete conversion was dependent upon the silver forming the image being completely reduced to the metallic state. As this does not always take place in the lighter tones of a bromide print, it is necessary that such complete reduction be insured by first intensifying the print by any of the redeveloping processes. The tendency of the prints to fade out as noticed by my correspondent is an indication that the amount of vanadium chloride was too great and the solution should have been diluted. Toning should take place in from four to eight minutes, dependent upon this amount of dilution necessary, and this last in turn depends upon make of paper employed; the reaction varying with different brands. I have not the original formula at hand or I would give it for the benefit of other readers.

The Mazeograph Process

Originally Mr. Calvert intended to teach the Mazeograph Process as any regular Correspondence Course is taught, but later arranged the complete course in a single copy instruction paper which so minutely and carefully explains the process throughout, that neither the professional nor amateur will experience any trouble in following the directions and producing the pictures in ten minutes' time. This one copy of Mazeograph instructions contains full detail, and any man or woman who can read plain print cannot help but be successful. It is an undeniable fact that in the past two or three years Post Cards have led all other souvenir novelties and

are still increasing in demand, but with all the varieties, styles and different kinds, none can possibly be more original or appropriate than those bearing the image of the sender. About the first successfully quick-finished photographic Post Cards were made at the St. Louis World's Fair; at that time it required nearly one-half an hour to finish them (they were not guaranteed), and the additional expense of using a projecting camera and lantern was necessary. These Post Cards in no way compared with those made in Portland, at the Lewis & Clark Exposition, and finished in ten minutes regularly, and the Post Cards are as perfect now as they were the day they were made. Mr. Calvert has spent a great deal of time and money perfecting the Mazeograph process which is the most modern, simple in operation, productive of the best results, and the most inexpensive method for finishing Post Cards in 10 minutes, in use anywhere. In fact, there is nothing similar to it. Any light may be used, from candle light to daylight. This is all explained in connection with the printing machine, which is also separately described by a chart, and, this latter, although simple and inexpensive in construction, will be found indispensable and of great value.

The New Royal Velox

We have recently had the pleasure of seeing some prints on the new paper, Royal Velox, and to say that they are particularly fine and effective prints is putting it very mild. The mellow tone of the stock upon which the emulsion is coated gives a very rich and striking quality to the prints, which are made still more pleasing by the superior quality of the emulsion itself. Particularly pleasing are the ones that have been redeveloped with Velox Redeveloper, the tones secured by this method seeming to be most suitable to the pleasing tone of the paper. The Velox people are to be congratulated upon placing this new paper in the hands of the photographers and its popularity is only a question of how soon the merits of this new paper can be made known.

In Professional Fields

Mr. A. L. Jackson, of Tacoma, the prominent Northwest photographer, is facing the serious problem of securing a new location for his studio. The six-story building in which he has been located for the past ten years is to be torn down and reconstructed. During this time Mr. Jackson has added many conveniences to his gallery, until at the present time it is as near an ideal studio as is possible to construct, and its abandonment means months and years of hard work before friend Jackson will be as nicely fitted up again.

The Winters Photo Company, of Eugene, Oregon, has sold out to Mrs. J. W. Tolman, formerly of Vancouver, Washington. The retiring firm was among the pioneer photographers of Oregon, and during their long years in business have built up an enviable reputation as first class workmen. Mrs. Tolman is a lady of unusual artistic ability and well qualified to cater to the high grade trade worked up by her predecessors.

Moon & Wills, well known photographers of Seattle, Washington, who for some time have been compelled to suspend business pending reconstruction of the building in which their studio was located, expect shortly to move into their new quarters which they are fitting up in an elegant and up-to-date style.

W. G. Emery, who has lately opened a studio in Vancouver, Washington, writes us that his work has met with a most flattering reception by the residents of that city. Mr. Emery's studio is fitted with an Aristo light, and he handles only high grade work, making a specialty of platinum, carbon and the like.

J. W. Tollman has removed to Santa Barbara, where he is conducting the handsome little Edwardo studio, which he has purchased.

Ed. Leach, of Santa Barbara, passed away very suddenly, leaving a large circle of friends to mourn his loss. Mrs. Leach will continue the business, and as she is experienced and fully competent, will no doubt achieve even added success.

Samuel Cohen, formerly with the Habenicht Studio, of San Francisco, is now in Chicago with one of the largest studios in that city. Billy Smith, formerly with the Sunset Press, is also in Chicago.

Charles Anderson, who was operator for the Elite Studio, in San Francisco, at the time of the fire, is now in Minneapolis with one of the leading studios.

Allen Lewis, formerly with Howland & Co. of Los Angeles, is now in business for himself on Fourth street, between Broadway and Spring Street. His many friends predict success from the first.

It is stated that F. H. Schumacher, of Los Angeles, one of our leading and most highly respected photographers of the Coast, has given up the photographic profession and will in future confine his efforts to the real estate business. Professor Haussler is now occupying his studio, having succeeded Mr. Schumacher some months ago.

A. L. Majoiner, the popular photographer of Los Angeles, who has made such a name for himself as a professional and theatrical photographer, has moved into his new quarters in the Auditorium Theatre building. This new studio is no doubt one of the handsomest on the Coast.

Flashlight Work

David Gray Archibald, the well-known photographer of New Jersey, being engaged in gathering material of value for a complete work on flashlight photography, would be glad to receive from fellow workers photographs, experiences and the like. Full particulars, telling how difficulties were over-

come, especially desired. The printed matter of manufacturers of flash apparatus the world over is wanted. Clippings from papers and magazines relating to the subject also desired. Our readers will kindly communicate with Mr. Archibald at his address, 109 Miller street, Newark, New Jersey.

CAMERA CRAFT



San Francisco
California

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CAMERA CRAFT

1915 POST STREET

SAN FRANCISCO, CALIFORNIA





"CHUMS"

By C. S. WHEELER
PENDLETON, OREGON

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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No. 3

Baby Pictures by Flashlight

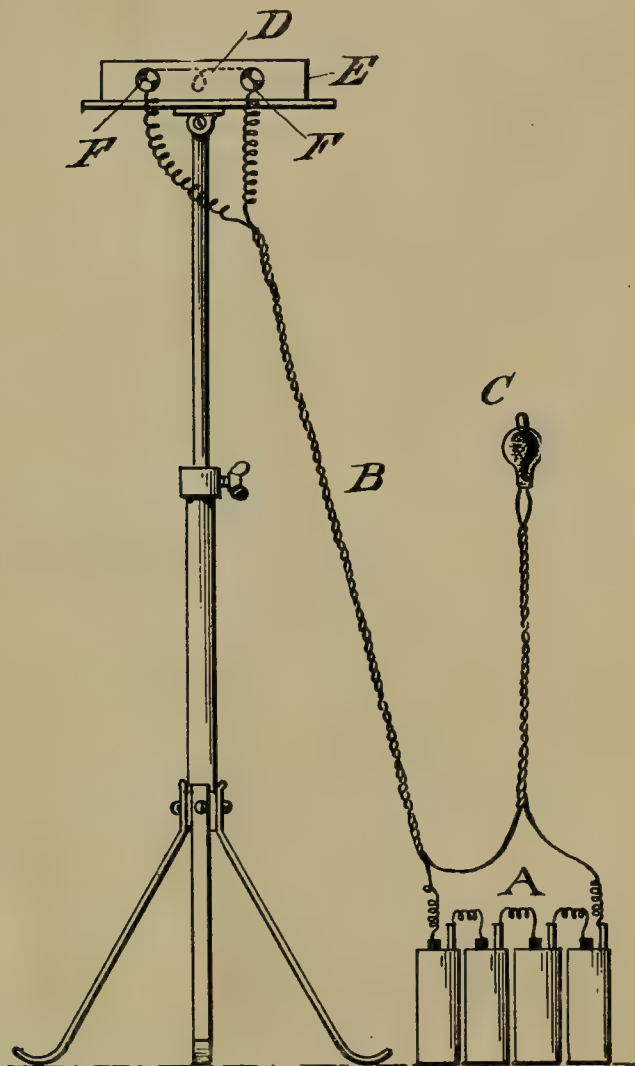
By W. F. GINRICH



WHEN Mrs. Brown asked me to come over and take the baby's picture, I reluctantly went. I went because she was an old friend of mine. I went reluctantly because I had tried to photograph babies before. Confidentially, I imagine she had an idea that I would be exceedingly delighted to have the honor of taking baby's first picture. "O yes," she had said, "O yes, baby will hold perfectly still." Little did she understand that it would require an exposure of at least several seconds in their poorly lighted rooms to get even the ghost of an image, let alone to catch the 'cute expressions' so dear to the heart of every mother. A second is a long time to a six-months-old baby, when it comes to holding still. I'll admit that this child was a cute youngster, and I had an earnest desire to get the best possible result; but I realized the difficulties, so I went unwillingly.

After I had everything in readiness for an exposure, baby wouldn't hold still. Once he came near it, but bless him, his expression wasn't right. A dozen times he was in what his mother called "just the sweetest pose," but just at those moments he wasn't still. In vain did we coax, and perform for him, and try to surprise him into a good position by showing him all sorts of funny things; baby wouldn't pose. Mrs. Brown even tried scolding, and then the little fellow cried. I wanted to try him in that position, but the mother positively would not hear of it. What should I do? To deceive Mrs.

Brown by making a pretense of getting a picture, and then let her know the facts later over the 'phone or by mail would be cowardly and hypocritical, to say the least. She would ever after consider me a fraud and a cheat. Suddenly an idea struck me. Why not try a flashlight? Happy thought! My reputation was saved. With the help of Mr. Brown, the fire shovel and a red-hot poker, the thing was done. I manipulated the camera while Brown touched off the powder, and by accident we got a picture. After the excitement was all over and I had time to think, I realized that such a manipulation was altogether too uncertain. Too many people had to be mixed up in it. What I needed was some arrangement whereby a good,



broad flash could be given, at some distance from the camera, in order to avoid flat lighting, and some means of igniting the powder instantaneously without interfering with my working the shutter or taking my eyes from the subject. Such contrivances are on the market, but they are expensive. I began experimenting and as a result, constructed a flashlight apparatus that gives entire satisfaction, and at a cost of about a dollar, not counting the price of an old tripod that I happened to have on hand. It is based on the principle that a current of electricity passing through a piece of fine iron wire heats it to incandescence.

To make this apparatus, procure four cells of dry battery, less will do, but this number will guarantee certainty of results; ten or fifteen feet of insulated copper wire of the kind by which incandescent electric lights are suspended, a push-button

and a few cents' worth of the finest iron wire you can find. If you wish to elaborate, you may add brass binding posts. Besides the above named articles, you will need some kind of a stand like a tripod to set the powder on. An old adjustable music rack is just the thing. The accompanying diagram will make the arrangement plain: A is the battery, B the conducting wire, C the push-button, and D the fine iron wire which the electric current heats red-hot and which ignites the powder. It should be no more than two or three inches long. E is a tin trough upon which the powder is spread out, and F F are binding posts that the maker will find convenient though not essential. A music rack is shown as the support, as one can be easily altered to permit of a greater elevation, something that will be found very desirable.



SHOWING THE ILL EFFECT OF HAVING THE LIGHT DIRECTLY IN FRONT OF SUBJECT

To operate this apparatus, first place the stand in the desired position, then spread out the powder in the tin trough, allowing a small point of it to cover a section of the fine iron wire. Now pose the subject, draw the slide and wait until the proper expression comes, then press the bulb and immediately afterward press the button. The red-hot wire will ignite the powder, you will again press the bulb to close the shutter, then replace the slide, and there you are. No need to wait until the child is still, for the flash will be so near instantaneous that no movement will be apparent in the picture. My four cells of battery melt the wire almost instantly. It is well to have all the other light possible in the room, provided it is not in front of the camera, as it will obviate the likelihood of getting that staring expression so often noticed in flashlight pictures.

A word of caution: I believe this to be the safest flashlight apparatus I have ever seen. But flashlight powder is dangerous. Permit absolutely



THE KIND OF PICTURE THE MOTHER LIKES

no one near either the powder or the push-button after the powder is on the stand, for it takes but a touch of the button to ignite the powder. It is well to spread a paper out beneath the stand to catch any ashes or dust that would otherwise fall on the carpet. Be sure that no drapery nor curtains hang near the flash, as the powder makes an intense heat and may set fire to any easily inflammable material near it.

Of course, this arrangement is not exclusively for use in child portraiture. It can be used wherever a flashlight is necessary, and I have found that the flashlight is the solution to a great many difficulties. Try it on older children or grown-up folks and see how easy it is to take them unawares. Remember that there is nothing in photography so inartistic as a forced smile, or a forced expression of any kind, for that matter.

There is one slight objection to the apparatus I have described. It is somewhat heavy. However, when it is remembered that there is no excellence without labor, we may consider that the end justifies the means. It is a good idea to have a case especially for the outfit and then it can be easily carried about. I have never heard of nor seen a similar flashlight instrument, but probably there are such on the market. If there are, they are doubtless expensive, and will give no better satisfaction than this home-made one, which can be easily and cheaply constructed by any one possessing a little ingenuity.

As to the amount of powder required, I can only give approximate figures. In a small room with white walls there will be need for less than would be required for the same distance from sitter and stop in lens with a large room and walls of dark color. In an ordinary room with lens working at f-8 I find the following amounts about right for the distances named: Ten feet from subject, twenty grains; fifteen feet, forty-five grains; twenty feet, eighty grains, and at a distance of twenty-five feet, one hundred and twenty-five grains. If a lens is used working at f-5.6, these amounts can be halved, and of course will have to be doubled if the lens be used at f-11.

The position of the lamp should be such that the light falls on the face at an angle of forty-five degrees. A good plan is to place the light at such a height and at such a distance that it forms the upper left hand corner of an imaginary square, of which the sitter's head forms the lower right. Of course this exactness can not be secured at all times, but with the point in mind one is less likely to go far wrong in the matter.

Art

Art is not a thing of spontaneous origin, but of slow and gradual, though constant, growth, ever changing, with a tendency to advance from the simple to the complex; and, while we may study and compare its fluctuations in the past, and view the changes which it undergoes in the present, and speculate as to its beginnings, yet in nowise can we foretell what will be the end.—Henry Balfour.

A Direct Three-Color Process

By H. E. BLACKBURN

Mr. Blackburn has given close attention to every proposed three-color process during a number of years, and for that reason we can commend his article to our readers as being eminently practical and reliable; not theorizing, but the result of much experience and actual work. This article will be followed by others from his pen. Mr. South of the Solgram Company advises us that they are willing to assist serious workers desirous of trying their paper to the full by maintaining what might be called a free correspondence course. The address is: Solgram Company, Downingtown, Pennsylvania.

Now that direct three-color photography is showing itself to be of value, many "new methods" (?) have been brought forward for consideration. But few, if any, of these offer any fundamental departures from the method employed by the three-color process engraver of today, namely: the making of three negatives in the camera on one brand of panchromatic dry plates; one through the red screen or filter for the blue printing, one through the green for the red printing, and one through the blue for the yellow. This process of negative making has been brought to perfection by prominent workers, but the printing from these negatives by any photographic process leaves much to be desired unless hand work is employed.

In working the method which I will describe I employ the same outfit and materials that the three-color process worker of today uses; only eliminating the ruled screen and substituting rough matt-surfaced paper, for securing the half-tone effect. I also disregard the fatal opaque blue pigment of printer's ink, together with the fugative aniline dyes used in their manufacture; substituting the ordinary blue-print solution, a most transparent blue of great permanency and true color luminosity. I am using the same pigments for the red and yellow, only grinding them in water and gum arabic instead of oil and varnish, as does the printer who produces his effects from the three-color blocks of the process engraver. In my work I have acted upon the belief that a simple and easily workable method, free from technicalities, serves the practical worker much better than a complicated and perhaps theoretically correct one. I am describing a process of simplifications where good apparatus, regardless of advertising claims, figures materially. The gifted individual who can take a saw, hammer, board and a few nails and with them make the most elaborate outfit, and describe the same in print, is not considered in this article. The day of making one's own camera, screens, or sensitive paper, is past.

It is a comment frequently made by serious workers in discussing any good work they have seen produced by some of these three-color methods, that there is rarely any thought given to the many subjects that were tried before one was found that suited the method employed. Even the plebeian blue print suits some subjects. The three-carbon tissue transfers, in the hands of skilled and careful double-transfer workers, do well. The one great objection to this process, based on gelatine, is that it is so slow in drying between the transfers and between sensitizing, that in damp weather it requires almost a week to secure the three finished prints which make the

final result. In the large sizes the amount of pigmented gelatine carried, together with that used in transferring, pulls the print out of shape in drying unless it be fastened to a heavy support.

For three-color work one can use any camera having a set of holders fitting the back snugly (not of the sliding pattern), and having enough stability when in position to avoid any danger or shifting during the changing of the plates. The slightest movement of the camera or alteration in the position of the plates may influence the dimensions of the negatives and make proper registration impossible. A tripod is almost useless unless specially made; a rigid table being better; $6\frac{1}{2} \times 8\frac{1}{2}$ is sufficiently small enough to allow one to do justice to the work; in fact, they do not make process lenses in smaller sizes.

Three single plate holders with doors at the back and mitered to fit back of camera, will be required. Paint one red and have the red filter fit tightly in the front. Paint another green and fasten filter as in the red. Do the same with the third holder, using blue paint and the blue filter.

These filters can be made by fixing out ordinary dry plates. They should be taken from the box and measured as to thickness so that the finished filters, including cover glasses, will be of exactly the same thickness. After fixing and washing they are dried and dyed according to formulae to be found on page 108 of Von Hubel's text book on three-color work. Such screens can be purchased at a quite reasonable price from Foch & Lang of New York City. In ordering one should mention the brand of plate to which he desires them balanced. They should be of about the following ratios: red, seven; green, one; and blue-violet, one-half; and should fit in the front of the slide in the holder, as shown in the illustration. It is well to mark on each filter, just inside one corner, a letter "R" for the red filter, "G" for the green, and "B" for the blue. This will always print on the negative during exposure, marking it plainly and correctly.



The lens must be a process one working at not less than f-8. It must be corrected for the blue and red rays; ordinary lenses being useless for good work. One of the best is the Cooke process lens, as are also those by Zeiss, Vogtlaender and Ross. These give, independent of the filters used, sharp and equal sized images on all the three negatives. The plates to be used are known as panchromatic dry plates. Cramer has the same plate under the name of trichromatic. Hatt and Lumiere also have them under different names, and all are good. Ordinary isochromatic and orthochromatic plates are useless in securing good results. The plates should be placed in the holders in the dark, as they are sensitive to almost any colored light. In making the exposure a good, strong, steady light is essential for all subjects. Try to secure one containing the three primary colors well defined, and also some neutral gray objects, so as to have a neutral shade by which to judge and secure like density in developing the three negatives. Avoid pure black and white in the subject, if possible.

All exposures by daylight are determined by trial and error. The method

of procedure is as follows: Focus on subject, cap lens, remove ground glass and place green plate holder in position in the camera. Withdraw slide until it is clear of the plate inside the holder. Make an exposure of thirty seconds, cap lens and push slide in one inch, giving this thirty seconds and so on until the plate is all exposed; keeping the time marked down on a piece of paper for reference after developing, so as to locate the strip that develops in four minutes. This four-minute strip is correctly timed for the green negative and having found the correct exposure for the green filter, consult the ratio of the red filter and multiply it by the green exposure time for the correct time for the red exposure. Do the same with the blue ratio for the blue negative. Thus one will secure the correct exposures for that particular subject and light for the three plates.

Development is conducted in the usual manner but preferably with all three negatives together, using some good developer like amidol. They should be developed under cover and should be finished inside of four minutes. Never force development; make another exposure, timing correctly by the aid of the first experience. Always leave camera set up, if possible, until after development, for this purpose. The grey object in all three negatives should show the same density and all of them should be clear, soft and full of detail and gradation.

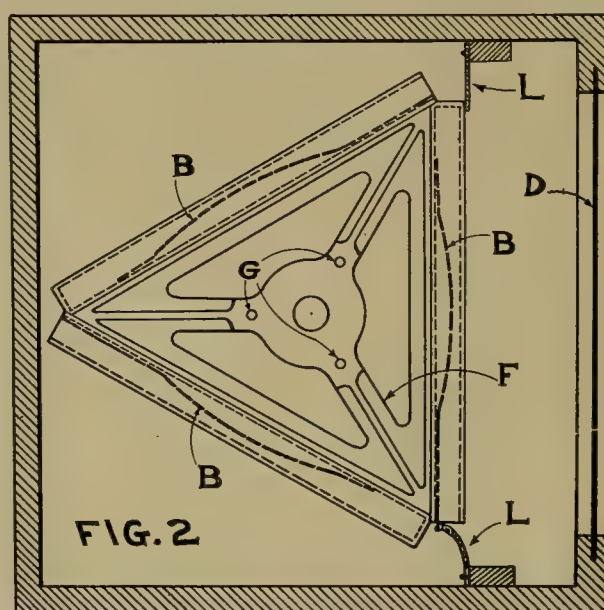
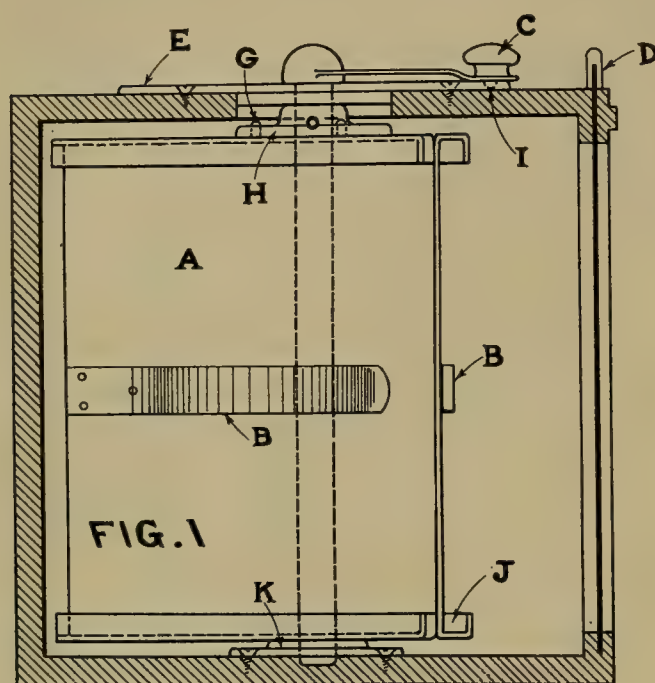
When the negatives are dry, paint a quarter-inch margin around the edge of the red negative, using blue water color; paint a red margin around the edge of the green one and give the blue negative a border of yellow. This will give one a safe edge and settle for good the proper color to print under each negative. Having secured these three negatives one is ready to produce prints by any of the so-called three-color methods.

Solgram paper meets all the requirements. It is a combination of gum-bichromate and the ferro-prussiate processes. It is quite inexpensive and very rapid in operation, drying in thirty minutes even in moist weather, and it can be worked under any climatic condition. One should not attempt to produce a home-made article because the sensitizers and emulsions must be machine coated in order to be even, and then again, the manufacturers can produce and sell it cheaper than the ordinary worker can make it, even should he know how. One can secure the paper along with the necessary chemicals and an instruction book by addressing W. C. South, Downingtown, Pennsylvania. Mr. South is an old hand at process work, having spent the best part of his life in perfecting the three-color work. Solgram, as it comes from the factory, is a ready-sensitized red gum-bichromate paper of about the same speed as Solio; having great latitude in exposure and good keeping quality in any climate, quite the reverse of carbon. The paper can be handled in the same light as Solio and should print under the red-margined negative in the same time it takes a strip of Solio, acting as an actinometer to print proof deep. Some such guide is needed, as the gum-bichromate pigment does not show an image.

After printing, remove the print to a tray of cool water, washing it on a slab with a soft sponge, using the soap sent with the paper, and no other. If the undesired coating fails to wash off easily, make another print,

shortening the time. When right, the washed-out print will resemble a blue print, only far from it in beauty. Hang the print up to dry and then prepare the blue-print solution as directed on the blue envelope. Next take a two-inch flat camel's-hair brush and coat the dry red print evenly. As in making blue-print paper, avoid allowing the solution to soak through the paper. Hang it up to dry in the dark, having the room well ventilated and free from the odor of gas.

Expose when dry under the blue-margin negative, after seeing that print



and negative are in perfect register by looking through both before clamping on the back of the frame. Expose as for a blue-print or until the shadows look a shade deeper than you wish them to finish. Develop by washing in five changes of water. If too light, recoat and expose again; if too dark let it wash longer and more color will come out. Do not resort to reducers or intensifiers, and do not fake. After drying this blue and red print, coat with the yellow solution made from the powders furnished, and when dry, expose under the yellow-margin negative until well bronzed. Wash out with a soft sponge without using any soap. If lacking at all in color, repeat the operation. One should then have a multi-colored picture with glimpses of pure color exposed in their proper positions. If there are any defects in the finished print, there is no paper more suited to taking water colors or crayon.

Using this process one does away with the troublesome, uncertain and costly methods which involve stain, transfer and slops; reducing this uncertainty inherent in this fascinating process to a minimum and also proving to one's own satisfaction that this is the most perfect system of color photography upon paper. The past season has brought forth a great number of workers in this simple and accurate process and it is but natural that such should be the case for the reason that anyone with the slightest knowledge of photography can at once easily secure faithful reproductions of the colors of nature.

The Special Holder Used by Mr. Blackburn

Mr. Blackburn's first holder was made according to his drawings by a firm in New York who have since gone out of business. He is today using a holder of practically the same design as shown in the drawing below. These are drawn to scale for a 4x5 camera, and will enable any mechanic to construct the holder.

The casting F for ends of carrier should be accurately milled to size and then the sheaths soldered or riveted in position. Hard wood about one-half inch in thickness may be used if accurately finished. Flange H should be firmly soldered or pinned to the center spindle. By loosening the screws in

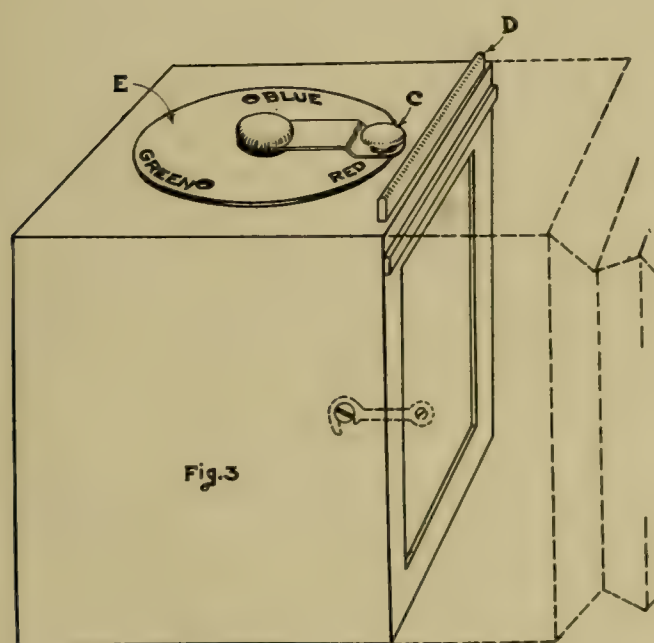


Figure 1, sectional side view; figure 2, sectional top view; figure 3, holder attached to camera. A, triangular revolving plate and screen holder; BBB, springs for holding plates and screens firmly in position; C, spring catch holding carrier in either of the three desired positions; D, slide; E, register disk carrying three holes to engage catch C as each side of carrier is brought into position; F, casting for each end of carrier; G, pins tightly fitting three holes in flange H; I, projecting pins engaging holes in disk E; J, groove formed by sheath to receive the plates and screens; K, lower combined washer and bearing screwed to inside of holder box; LL, leather or felt strips shown only in figure 2

register disk above, the spindle may be drawn out and the holder taken apart, although this should not be necessary once it is put together. The strips of felt shown at LL engage the corners of the revolving holder and are inserted to prevent too much light passing to back of holder and possibly fogging the two plates not being exposed. It is essential that all three color screens be of the same thickness, so that the focus will be the same for each plate. The construction of this holder must be done with absolute precision in order to insure each plate coming successively exactly into and perfectly parallel with the focal plane. If this is not done, distortion, variation in size of image, and lack of sharpness will result. The insertion and removal of the plates and screens can be effected very readily from the front of the holder after removing the slide. Removing or inserting plate and screen together obviates the possibility of scratching the surface of either. The box can be attached to an ordinary plate holder after having removed one of the slides and the middle septum from the latter, thus insuring an easy method of fitting in some types of cameras.

The sliding variety of holder made to successively expose the three plates, acts as a sail to catch the wind; is very prone to least light; carries a great amount of dust into the camera, and requires greater care to prevent movement of the camera when bringing a new plate into position.

Developing Three Color Negatives

The following is an abstract from a lecture delivered by HERR HANS SCHMIDT before the International Congress of Applied Chemistry at Rome. The full text of the lecture covers the history and details of the several processes.

Possibly a few preliminary remarks as to the methods of obtaining the negatives may not be unwelcome. The splitting up of the colors of objects is effected by means of three filters, red, green and blue. As it is not possible to make glass of suitable color it is usual to coat glass with gelatine stained up to the proper color, and a cover glass is generally cemented down.

Film filters are colored sheets of thin gelatine. They may be placed in contact with the plate without any loss of sharpness, so that no special arrangement is required as in the case of the glass filters. It has been proved by practice that it is not absolutely essential for the film filters to lie absolutely flat in order to obtain good results, so that too much stress need not be laid upon that point. On the other hand it is absolutely essential that these filters should be kept clean and not cockled, as both will cause markings on the negative. As regards the coloration of these gelatine filters, a similarly colored sheet of gelatine will not do, but it must be of the exact color and be spectroscopically tested.

These film filters permit of the use of any camera with dark slides, for three color work. The use of the glass filters requires the use of a repeating back, or the filters, if fitting on the lens, must be changed after each exposure. The repeating back has the great advantage that with it plates and filters can be very rapidly changed, and this is of advantage in portraiture. For still life subjects and landscapes the film filters can be used, but the repeating back is also more useful.

Panchromatic plates must be used. An ordinary plate may be used behind the blue filter, but not with the red and green, for it is only sensitive to blue.

The so-called ortho or isochromatic plates may be used for the green and blue exposures, as they are sensitive to green as well as blue, but for the red filter a red sensitive plate must be used. So that it shall not be necessary to keep three plates in stock it is advisable to use the so-called panchromatic plate for all three exposures. There is also a further advantage, for in this case, one emulsion only being used, the gradation in the three negatives is the same.

The exposure for the three negatives is to some extent empirical, but can be easily determined by any one who is accustomed to ordinary photography. The ratio of exposure is absolutely dependent on the kind of plate and the filter, and absolutely independent of the color of the object to be reproduced. This ratio always remains the same for the same plates and the same filters.

In order to determine this ratio for a given plate and set of filters, a sheet of white paper should be crumpled up into a ball and exposures made on this. After development the negatives should be examined against a

sheet of white, and the image of the ball of paper examined to see whether it is equally dense in all three negatives. If this is not the case, but if, for instance, it appears on two negatives of equal density, but thinner in the third, then this is a sign that the third negative was under-exposed. A guess must now be made as to how much this negative is under-exposed, and a second set of negatives made, or more, till the density is the same in all three. When this is obtained the ratio of exposures is correct and it will remain constant for those plates and filters.

In order that these experiments shall be absolutely free from error, it is essential that the three negatives be developed together in the one dish.

As the plates are very sensitive to red, it is obvious that they must be protected as much as possible from the red light of the dark-room lamp. It is therefore better to place them in the dark slides in the dark, and to develop them in the dark. If absolute darkness cannot be borne then the plates must be worked in the shadow and away from the direct light.

Someone may ask how, if one cannot see the plate, can one determine as to the duration of development. The answer to this is that examination of the plate in three color work is absolutely unnecessary, and development by time must be resorted to. With a developer of given constitution and a given temperature, assuming that correct exposure has been given, development will always be completed in a given time. This time may easily be found by a few experiments.

It is important to note that the composition of the developer, its temperature, and the duration of development must be strictly adhered to for all subsequent work, if on the basis of the first experiment good results are also to be obtained. Above all things it is essential, though it is not so important in ordinary photography, to take great care as to the temperature, for sometimes even a drop of two degrees below the normal 65 deg. Fahr. will make a difference of half the time of development. It will thus be seen what great failures may be caused if all the operations are not exactly carried out. If, however, one adheres strictly to the conditions which have once been established, development by time is very safe and very convenient. This method is specially valuable in color work, because then one can work in the dark and will not be tempted to develop one plate differently to another, for if this is done there are certain to be faults in the color rendering.

The reason why examination of the negatives during development is unnecessary, is due to the fact that no one can say whether the negatives are correct or not, for the human eye cannot say how much yellow, red or blue is contained in any compound color in nature.

If we take an autumn landscape for instance, it will be found that the negatives taken through the red and green filters will appear fairly normal, that taken through the blue filter, on the other hand, will appear completely under-exposed. This, however, is only apparently, for an autumn landscape contains a lot of yellow, and therefore the negative which is taken through the blue filter and which is printed in yellow must be very glassy.

As regards the general appearance of three-color negatives, they should as a rule be thin and soft, because on the one hand they must record ex-

tremely delicate gradations, and on the other hand they must not be so deeply printed as an ordinary negative, for it must not be forgotten that in three-color work three pictures form one, so that as it were each individual picture must have one-third the depth of the finished picture. It will be plainly seen how difficult it is to judge of the correctness of the negatives, if it is considered for one minute that if a pure white object is in the picture, this must be naturally equally dense on all three negatives. This density ought not to be absolute, as in an ordinary negative, but also even here the negative must print through.

According to the colors of the subject, the three negatives are more or less different, one from the other. In portraits of persons in brown, grey or similar neutral clothing no difference can be seen in the negatives, on the other hand with brilliant colored objects, the difference can be clearly seen. In order to avoid any subsequent mistake in the negatives whilst printing, it is advisable to arrange some distinguishing marks either on the filters or in the slides, so that they may be automatically impressed on the plate during exposure. It is then easy to tell once for all which negative is to be printed in yellow, red or blue, without careful examination of the colors of the original.

As to the technique of developing there is still a little to suggest. It has already been mentioned that all three negatives must be treated absolutely alike. In order to obtain negatives of the desired character, that is, not too dense, but with fine detail and perfect gradation, it is necessary to use a soft working rapid developer like rodinal or edinol, or any other of similar character, but in no case should hydroquinone be used. As the duration of development at normal temperature is very short, only about half the usual, care must be taken that the plate is evenly covered with the developer, and further that at the end of development the plates are all removed from the developer as rapidly as possible; if the plates are not removed from the developer practically altogether, it may easily happen that one may be eight seconds longer in the solution than the others, and this, if thirty seconds is the total time of development, may make serious differences in the negative. For this reason it is advisable not to use the developer at too high a temperature. In order to ensure the plates being evenly covered with the developer, they should be soaked in water first. In order to remove them quickly they may be either lifted out by means of frames or wires, or an equally efficacious though somewhat more extravagant method, is to at once flood the dish with water, which dilutes the developer so much that it reduces its action so that it is practically stopped.

Anent Three-Color Work

Mr. Blackburn's article in this issue gives the results of an attempt to find a practical method that at the same time might be as simple as possible. The description of the holder which he employs is such that any ordinary mechanic should have no trouble in constructing a duplicate. The extract

from Herr Schmidt's lecture seems to cover the subject of negative making most thoroughly, presupposing, of course, that the worker has the ordinary skill and knowledge of the principles involved in the development of negatives made in the ordinary way. The next following article gives some information that will be of value to those in search of apparatus needed for a deeper study of the subject. As to books on the subject, Tennant & Ward, 287 Fourth Avenue, New York, can supply the following three, which, we believe, are all that are available in our language and of so recent date as to be helpful: "Three-Color Photography," by Arthur Von Hubl; translated by H. O. Klein. Cloth \$3.50. "Photography in Colors," by Bolas, Tallent and Senior. Cloth, \$2.00. "National Color Photography," by Dr. E. Konig; translated, with additions, by E. J. Wall. Cloth, \$1.00. This last is the latest exposition of the subject, and if the three cannot be ordered it would be well to secure at least this one as a means of acquainting oneself with the methods of securing three-color photographs. There are, of course, several very excellent books on orthochromatic photography which also add information that may be of assistance.

Three-Color and Spectroscopic Research

By CAPT. EDWIN T. COLE

A spectroscope is a pre-requisite to any serious study of the general theory of color absorptions and its particular application to color photography, including the adjustment of filters and the selection of the proper plates to record different parts of the spectrum.

Until very recently this need has been a serious impediment to such study. A couple of years ago I started out to procure a spectroscope for some study in which I was engaged at the time. While some spectroscopes of the diffraction class were advertised at fairly reasonable prices in England, I could find no way of getting hold of one of them except by direct importation, which is a difficult matter for one not acquainted with the procedure. I finally fell back on a prismatic spectroscope, and for forty dollars obtained a fairly efficient instrument of this type. It was good enough for general color work unless the line of division was in the crowded red end. When the edge of the absorption fell anywhere in the red, orange, yellow, or even green, it was hard to locate its exact position, especially as only the most prominent of the mapping lines were visible with ordinary optical power. As in common with most people who use the spectroscope at all, I soon became interested in other features of the study; I felt keenly the limitations of the instrument, but I had already invested all the money I could apply to this purpose, and found that a really efficient instrument was a very costly affair.

A short time ago I ran across a copy of some circulars issued by the Scientific Shop, kept by Prof. Albert B. Porter, at 324 Dearborn street, Chicago. The information contained therein in regard to spectroscopes seemed to me so revolutionary and of such importance to the photographic world that its dissemination would be of sufficient importance as a news item

to override any objection to its publication being incidentally an advertisement.

Mr. Frederick E. Ives, who has done so much for the advancement of color photography, has succeeded in making casts in a transparent medium of original ruled Rowland gratings. These replicas are for all practical purposes equal to the originals, and as they are sealed between glass, are not easily injured. With the 15,000 line to the inch grating not only is the D line clearly resolved, but even with moderate powers the nickel line is clearly shown between the elements of the D line. With higher power in the second order spectrum, the line midway between the E and B is resolved into a triplet, although the distance between its adjacent elements is only one-twentieth of that separating the elements of the D line. A photograph taken with one of these gratings shows clearly more than one hundred lines between the E and B, although these lines are distant only about one-thirty-sixth part of the normal spectrum.

While such power is far beyond the requirements of the student of color, the description is given to show how perfect are these replicas. Now the most remarkable part of the matter is that the most perfect of the selected gratings are sold for \$5, and seconds, still of high efficiency, can be procured for \$2.50, while still more remarkable is the fact that Mr. Ives has perfected a direct vision spectroscope for using these gratings so simple that it is sold complete with the selected grating for \$8, and with the second quality grating for \$5. A complete camera to fit either pattern costs but \$9 more.

The high efficiency gratings, of course, require brilliant illumination. For ordinary lighting gratings for use in the same spectroscopes are made by photography with rulings of 3610 and 7219 lines to the inch, costing \$1.75 and \$2, respectively, while a good grating for direct vision work or for making a camera for color work can be procured for seventy-five cents.

All of these gratings can be purchased separately, and while it is hard to see how efficient apparatus could be constructed at less than the revolutionary prices above quoted, they are available for one who wishes to make any particular type of camera for himself.

The student of color who provides himself with apparatus fitted with these gratings has no difficulty in solving any color problem either by direct observation or photographic record, while, if the use of the spectroscope for such purpose excites a general interest in spectroscopic examination, he will not have to stop on account of the inefficiency of the instrument, but can make any examination which could but a short time ago have been possible only with an instrument costing many hundreds of dollars. The photograph above mentioned was made with the combination mentioned of Simplex spectroscope and camera.

As the lack of an efficient spectroscope, except at prohibitive price, has been one of the principal obstacles to experimental work in color photography, Mr. Ives' invention seems to be well worth heralding to the photographic world.

Prof. Porter also can furnish Mr. Ives' wonderful Kromskop and the apparatus for the still more wonderful diffraction process of Mr. H. E. Ives.

Ornithological Photography

An Appreciation of Two Earnest Workers

By PRESTON E. ANDERSON

With Illustration by William L. Finley and Herman T. Bohlman



MESSRS. FINLEY AND BOHLMAN
Mr. Finley standing

CONDUCTIVE to an appreciation of outdoor life as is the mild and equable climate of the beautiful Santa Clara Valley in which William L. Finley was born and reared, it is little wonder that his boyhood days were spent in wandering over the hills and through the marshes in quest of birds' eggs and with a desire to learn as much as possible of the habits and peculiarities of the feathered denizens of that out-of-doors that appealed so strongly to him at that time and which has continued to hold his love and interest and dominate the disposal of his time and energies. When eleven years of age Mr. Finley's parents removed to Portland, Oregon, and here he was fortunate enough to fall in with the kindred spirit, although four years his senior, Herman T. Bohlman. His own tastes had led him to collect the eggs and to study the ways of the birds about him, while Mr.

Bohlman practiced taxidermy and made the study a more scientific one. They



AT THE AERIE OF THE GOLDEN EAGLE

were both interested in birds and their individualities coordinated and became amalgamated to the extent that they have since worked with a unity of purpose that has often been the subject of their own as well as of their friends' remarks. With both, the out-of-door life had a charm that is irresistible. Both have a keen desire to merit the other's appreciation of work thoroughly done, and both feel that they can do much to further the

scientific study of ornithology by means of the truthful portrayal that the camera makes possible. At the same time they realize the value of scientific knowledge as an aid in their own efforts at recording bird life.

Early in the work of these two naturalists a camera became their constant companion. Soon it became even more, and in place of its being an accompaniment, it dominated their efforts to the extent that its requirements and



GREAT BLUE HERON



IN THE BLUE HERON'S COLONY
Sitting in one nest while photographing another

demands were made a study and their aim became the production of pictures that would portray bird life, their nests, their eggs, their habits, their movements and the like. Little by little a collection of negatives was secured. Each additional series of photographs increased their enthusiasm, multiplied the pride which they felt in the collection and inspired them to increase the value of every past accompaniment by adding to the completeness of the collection in their possession. Studying the work of Audubon, they were charmed with the wonderful drawings which this pioneer had executed and were inspired with a desire to improve upon his work by availing themselves of the accuracy of portrayal which the camera permitted. They realized that the camera with its fatal facility of reproducing everything before it without regard to the requirements of art or even their desire to emphasize some particular

part, was a serious handicap, but composition was made a study as was also the characteristics of the photographic material with which they worked. While it is rarely possible to accept other than the grouping that presents itself after the subject is located and an exposure made possible, one is often able to improve the artistic composition of his pictures by availing himself of the restless habits of bird subjects. One negative secured, it often pays most handsomely to await a more desirable grouping of subjects that are constantly changing their position. On the other hand, a knowledge of the important bearing which light and shade has upon the work causes one to select a more advantageous time of day than would be the case were he to ignore that vital consideration in the production of pleasing results.

Using lantern slides from their negatives numbering several thousands as a basis, Mr. Finley has evolved a series of lectures on Feathered Families, Photographing in the Tree-tops and Among the Sea Birds Off the Oregon Coast, with the object of giving a true picture of wild bird life in its various phases. He has tried to interest and encourage children and the young in a real love for the feathered creatures which have proven so interesting to Mr. Bohlman and himself. He seeks to interest camera work-

ers, sportsmen, and all lovers of out-door life, in a sport that takes the keenest skill but one that gives in return a pleasure that is thrilling and lasting. The study of feathered families will give one an insight into many



RED TAIL HAWKS 120 FT. ABOVE GROUND
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GOING AFTER THE HAWK'S NEST
120 FT. ABOVE GROUND

interesting bird traits and familiarize him with family scenes about the bird homes that will prove absorbingly interesting. One should adopt the plan of visiting certain bird haunts at short intervals and picture the development from the egg to the full-grown bird. One of the series in possession of these two men so depicts the life of two golden eagles. Three of the series are reproduced herewith, together

with a tele-photo view showing the location of the nest and their way of working. In many cases they have been quite successful in forming a "bird in the hand" acquaintanceship with their subjects. One of the pictures shows the close companionship which exists between Mr. Finley and a family of great blue herons, which posed as the subjects for many most pleasing pictures. One can readily endorse John Burroughs, who said: "The Great Blue Heron is a favorite of mine and my son."

The securing of the series covering the life of the two golden eagles required a period of three months in its accomplishment, six long trips back into the mountains of California were made and over one hundred 5x7 plates were exposed. Another series devoted to the red-tailed hawk was secured with hardly less difficulty. The nest was situated near the top



PHOTOGRAPHING THE AERIE OF THE GOLDEN EAGLE



GOLDEN EAGLES 21 DAYS OLD — DOWNY STAGE



GOLDEN EAGLES 40 DAYS OLD—MOTTLED STAGE

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GOLDEN EAGLES 62 DAYS OLD—ALMOST FULL GROWN

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of a tall cottonwood tree, a hundred and twenty feet above the ground. Another tele-photo view gives some idea of the work involved in climbing to this height as these two photographers did on seven different occasions. Another achievement required still different tactics. This was in securing pictures of the large colonies of murres that crowd the ledges among the rocky isles along the Oregon coast. Some of these rocks had never been scaled by man

and here they spent two summers in order to study the habits and portray the life of these birds that nest, wild and free, far from the eyes of man. Besides the murres and gaunt-looking cormorants that stand at right attention beside their nests, there were snowy gulls, petrels, and the huge-billed puffins or sea parrots that look as much like beasts as birds. One of the



YOUNG BUSH TITS AND NEST

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CLIMBING THE CLIFF
TO GET AT THE MURRES

pictures depicts the method of reaching the birds after launching the boat in the surf and then hauling it above the beating waves after each arrival at their destination. Despite the danger, their love of adventure and the prospect of securing the most perfect series of pictures ever made of sea-birds, was all the incentive required. In order to reach the subjects they were compelled to climb the Coast Mountains, follow down the seemingly endless trails to the ocean's shore and then round the point at Netart's Bay. There they saw the three huge rocks looming majestically out of the water a few miles off shore. The inhabitants tried to dissuade them, advising that the sea was dangerous, particularly at that time of the year, but they secured a light, fourteen-foot, double-ended dory and with fresh water, provisions, block and tackle and a supply of wood, they started. Twice the boat was overturned in the breakers, but finally they succeeded in reaching the rocks after a long and laborious effort with the oars. A little cove was found and the selected camping spot was a ledge about eight feet wide and some thirty feet above the narrow strip of shore, which was available only at low tide.

One who has not climbed the rocky ledge and visited a bird metropolis by the sea can

have no conception of the thousands upon thousands of feathered inhabitants that congregate in these places. Cormorants and their nests closely carpeted the long slope up to the peak of the rock on which the naturalists sought shelter for the night. Myriads of snowy gulls and sleek murrelets crowded every cranny and crevice of the rocks. Pug-nosed puffins and white-winged guillemots buzzed about their heads in a continual ferment of unrest. It was the sight of a lifetime, and at night the incessant squawking of the birds, combined with the ceaseless hammering of the waves, was a sound long to be remembered.



COLONY OF MURRES OR GUILLEMOTS

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But the reader must not imagine that photography alone constituted the work of Mr. Bohlman and Mr. Finley. They realized the benefits of careful observation and equally carefully kept records of such observations. Notes so full and voluminous as to seem almost childish at the moment, were made by both, even when working together. At night, while the occurrences of the day were still fresh in mind, they went over these memoranda and each challenged the other's accuracy and thoroughness, and if any disputed point remained, the next morning found them wending their way back in order that such question might be set at rest. The same careful examination of photographic results has resulted in the discarding of hundreds of negatives, in some cases the abandonment of a particular nest that proved illy situated, and a fresh subject located. The work of months has been discarded and done anew when it was thought that an improvement could be made. This care has resulted in a thoroughness that has become second



YOUNG KINGFISHERS

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nature to both. The notes which they have made cover a trip of over seventy-five miles in a double canoe up the Willamette River and then overland into the Cascade Mountains to the head waters of the Santiam River in 1897. The next year they went over the whole ground again. A trip up the Clackamas River proved disastrous. Attempting to photograph the birds found nesting on the precipitous rocks along the river, with camera strapped to back and working with other cords and straps by which to suspend themselves, the camera strap gave way and allowed the precious camera and the already exposed plates to smash

into a thousand pieces on the rocks below. This made future work impossible for that trip, as no other camera was available. The following year, after canoeing down the Columbia River, they attempted to shoot the rapids in the Lewis River, in Washington. The canoe overturned and as it was a rough and rocky spot, both cold and dangerous, their first thought was to escape with life. They swam after the canoe but the camera and some of the plates were spoiled. Fortunately, they had taken the precaution to wrap the bulk of exposed plates in water-tight bags which were tied to the canoe, and these were found safe and dry.

The two following years were spent on the Oregon Coast, and in 1904 Finley and Bohlman spent a delightful season with the great blue heron. The lowest nest at one heronry which was visited was one hundred and thirty feet from the ground. Mr. Finley has a picture showing himself sitting in one of these nests with a young, full-grown bird that was lifted out to make room for himself, standing just below. A good portrait was secured, as were also several characteristic poses of other of these very interesting birds. Deep in a fir forest several miles below Portland is this settlement of herons, the village being composed of some two hundred bird homes, not one of which is lower than one hundred and thirty feet from the ground and many being thirty feet higher.

The pictures which accompany this article have not been particularly selected, but are such as the Editor will choose from some twenty which Mr. Finley had available when a letter reached him where it had been forwarded. It would be interesting to show some of the earlier work of these naturalists, but space does not permit introducing the readers of "Camera Craft" to such interesting characters as the bush-tit, the little weaver bird of the West, the flicker, the chickadee, grosbeaks, wrens, warblers and others. These would have been more in the line of the amateur who could devote only a portion of his time to the work. A great deal of pleasure can be gained by studying the feathered creatures around our doors. A tumbled-down barn will shelter good material. Bank-swallows are not unworthy of much care



RUFANS HUMMING BIRD ON NEST

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and application. Black-throated grey warblers and warbling vireos, particularly the latter with their basket-shaped nests, are most interesting. There is a story in every life if we can but reach it, and bird life is not greatly different from that of our own in its tragedy and comedy, its love and war and domestic felicity. Study the feathered creatures that are living out their little lives in the hollow of their homestead tree and watch the early lives of their innumerable progeny being sent out into the world of sunshine and flowers. You will find pleasure and profit in the work, and the association with these out-of-door neighbors will be more conducive to good health and a mind free from care than the too-constant attention to the petty details of human affairs.

The reader of "Camera Craft" will expect to learn something of the apparatus and material used by these two photographers. The first serious

work was done with a camera which Mr. Bohlman constructed partly by himself. The major portion of their best work has been done with a camera of the reflex type, made with an eye to lightness and bellows accommodation that permitted the use of an 8x10, series III Goerz lens; the camera taking a 5x7 plate. Many bird subjects are of such small size that the large lens and long draw is quite important. The advantage of the focal plane shutter in bird work is mainly in its great light efficiency, allowing, as it does, fuller exposure with shorter time of actual opening, thus minimizing the danger of movement in the subject. All their other photographic manipulations are even more commonplace. Special apparatus and particular methods do not make for success; what is required is a love for the work and the patience and persistence needed to avoid slipshod results.



THE SISTERS

By NICK BRUEHL

Photographs on Apples

Illustrated by the Author, NICK BRUEHL

This title may sound rather strange to the uninitiated, but I have demonstrated very fully that it is a simple matter to print photographs upon the ordinary red apple if one goes about it in the right way. In addition to the process being most simple, there is no expense incurred, not even for so cheap a chemical as hypo, as no chemicals are required. While the resultant prints can only be said to be as permanent as the support on which the image is formed, I have found great pleasure in surprising my friends by presenting them with an apple upon which was a well defined portrait of themselves or their monogram or initials.



The skin of an apple, particularly at a certain stage of its ripening, bears a strong resemblance to our photographic plates and printing paper for the reason that it is very sensitive to light. It is this sensitiveness to light that causes the side exposed to the sun to turn red, and as one can often notice, where a leaf intervenes so as to cut off the light close to the apple, it will print an outline of itself, a silhouette as it were, in green, upon the red ground, which would otherwise cover that entire side of the apple which was exposed to the sun. It was through noticing this that I conceived the idea of printing from a negative upon the same surface. I first hunted out an apple having a leaf close to its surface, placed a piece of glass beneath the leaf and on it cut out my initials with a sharp knife. I then removed the glass and pasted the leaf firmly to the apple so that it would not be blown away by the wind, and left it for a week. At the end of that time I took the apple, soaked off the leaf and found my initials in bright red on a light green ground having the outline of the leaf.

My success prompted me to try an actual photograph, or one printed from a photographic negative. To this end I selected some apples of the red variety that were yet green, and encased them in bags made of the black paper in which plates and paper are usually packed. These bags were left on for ten days to exclude the light and add to the sensitiveness of the surface. At the end of this time the protection was removed and film negatives pasted in position by using the white of an egg; this white of the egg I found later was the only adhesive that would not show in the print. In order that all except the image when printed might be green, the apples were again enclosed in the protecting bags, this time with an opening cut opposite the portrait and a little larger. This acted much as would a vignetting device over a printing frame, and greatly enhanced the results. Other apples were given negatives made by scratching monograms, initials and sketches in spoiled films with an etching knife, attaching them in the same way and providing them with the same protection for the remainder of the surface.

The richness of color and wealth of detail that can be secured in this way is really astonishing. I am tempted to say that the results are superior to any that could be obtained on any photographic paper. The reproduction herewith will give some idea of the success which rewarded my efforts. A week was allowed for the printing. The fine deep red of the picture upon the delicate green of the ground must be seen to be appreciated fully. Only nature could give just the exact tones of the two colors that would harmonize so perfectly. I can only hope that others will be tempted to try the experiment this coming summer, and I can assure them that they will be amply repaid for their trouble.

Photography With Plant Juices

It is pretty generally known that photographs are made by covering a prepared paper with a photographic negative and exposing to light under the action of which certain of the chemicals in the paper are decomposed and the picture results. That the juices of flowers may be used in preparing the paper may be new to many botanists. When Sir John Herschel was experimenting with photography, more than fifty years ago, he discovered that alcoholic solutions of the coloring matter found in the petals of various flowers when evenly brushed upon paper gave most interesting results. Among the flowers experimented with were iris, violet stocks, poppy, etc. The juices of many flowers did not yield a color like the petals from which they were expressed, but, upon the addition of alkalis or acids, took on different hues. Thus the oriental poppy (*Papaver Orientale*) gave a faint yellowish stain to paper, but immediately turned to scarlet when a weak acid was applied. A photographic negative placed on paper of this kind and exposed to the sun for some time caused the color to fade out, but upon the application of acid the picture came out in vivid scarlet. All this is concerned in some way with the familiar fact that a red geranium may be turned from red to blue and back again by the proper application of acids and alkali.—“The American Botanist.”



A PROFILE
By NICK BUEHL

Enlarging for Amateurs

By A. E. KOEHLER

Illustrated by the Author

Often on photographing some bit of scenery with a hand camera, a print from the resulting negative fails to give entire satisfaction. It does not seem to convey the same impression as did the scene in nature. This is frequently due to the fact that the short focus lens of the ordinary hand camera takes in too much of the view. The real picture, that which attracted the eye, occupies only a small portion of the negative. To get a better effect it is necessary that the superfluous portion be trimmed off the print, but this usually leaves the latter too small to be satisfactory. A better method is to make an enlarged negative, including only such portion as is desirable of the original.

The usual way of securing an enlarged negative is to make from the original one a positive by contact on a plate and then enlarge from this by copying on another plate in the camera. A cheaper, and in some cases just as satisfactory a result can be had by making an enlarged positive on a sheet of bromide paper in the camera, and from this a negative by contact on either a glass plate or a sheet of Solio paper. For certain purposes the Solio negative gives a better effect than does a glass negative. A negative made from a bromide print can not, however, show as good detail and gradation as one made from a glass positive.

I had been using the above mentioned methods for some time when I learned through "A Photographic Digest," in a recent number of "Camera Craft," of a simpler method, which nevertheless gave results, as far as detail and gradation were concerned, superior to those obtainable by the glass positive method. By this process the enlarged negative is made by copying an untuned and unfixed Solio print by the light from a strip of burning magnesium ribbon. Such good results has it given me, that I thought a detailed description of my way of procedure might interest other workers.

In making the Solio print, I print quite deep, but not so deep as to bury the detail in the darker portion, or to tint the high lights too much. The print made, the rest of the operations must be carried on by artificial light, and therefore can be done at night. I attach the print to the side of a box by means of thumb tacks, being careful to get it flat. Any unevenness in the surface will cause reflections which will show as dense spots in the new negative. After adjusting print and camera, I focus by the aid of a lamp placed near the former. My camera being a short focus kodak, I have to use a supplementary enlarging lens for copying. With this attachment I can copy up to about double size, the distance between lens and print being about six inches. At this distance, with U. S. stop 128 in the lens, five inches of magnesium ribbon will give a copy on any ordinary plate. I use the Kodoid plate; a slower plate will give more contrast. I hold the ribbon



UPPER PRINT—Enlargment from original negative on Standard Bromide, using twenty inches of magnesium ribbon and stop **f-11.3** with portrait attachment on lens to secure desired magnification. Enlarging box has positions of negative and paper fixed to give 8x10 enlargement from full 4x5 negative, using camera lens alone.

CENTRAL PRINT AT LEFT—Contact print from original negative on Special Velvet Velox; printing in ten minutes, one foot from oil lamp.

CENTRAL PRINT AT RIGHT—Contact print from the enlarged negative made by copying Solio print from original. Printed on Special Velvet Velox, printing time one and one half minutes, one foot from lamp. A little too thin for Special Velox, as well as enlarging, but an excellent quick printer on Regular Velox.

LOWER PRINT—Enlargment from the Solio made negative on Standard Bromide, using five inches of magnesium ribbon and stop **f-16**. Yellow tissue paper used between light and negative to secure added contrast.

about eight inches from the print and directly behind the lens. If held too far forward bits of burning ribbon may drop between the lens and print, causing streaks of density to show in the negative. A sheet of cardboard or several thicknesses of heavy paper laid across the camera will protect the bellows should any sparks fall on it. While burning, the ribbon is best held with a pair of pliers.

For bromide enlarging, magnesium ribbon is easily the best illuminant for amateur use. Owners of kodak enlarging cameras can, by its aid, obtain enlargements as easily and quickly as they can make Velox prints by contact from the same negative. The results are also more uniform and better than are obtainable with daylight. For making 8x10 enlargements I have rigged up a simple contrivance, a sort of portable dark room, originally intended and used for daylight enlarging. It consists of a large box mounted on a trestle. An opening at one end holds the negative. Inside a shelf holds the kodak, so that the opening in the back coincides with the opening in the box holding the negative. At the opposite end of the box is placed a printing frame holding the bromide paper. No glass is needed in the frame when the paper is the same size. I use different sizes of frames, according to the size print I want to make. A kit can be used in the larger frame. The front of the box is covered with a curtain made of two thicknesses of red canton flannel and reaching well down to the floor. I do the developing and the loading of the frame in my regular dark room, though if the box is large enough and a ruby window be provided at the back, these operations can be carried on in it also. With stop U. S. 8 or 16 in the lens my negatives require from five to twenty inches of ribbon to enlarge on Eastman's bromide paper; the distance between negative and paper being about thirty inches. At this distance I get an 8x10 enlargement from a 4x5 negative. If I want a larger size or an 8x10 from a smaller negative or from a small area of a 4x5 negative I use the portrait attachment, thus economizing space and illuminant. I burn the ribbon close to the negative, a sheet of tissue paper being interposed to diffuse the light, and keep it moving up and down and from side to side. Any dense portion of the negative can be given extra illumination, but if dodging is required, two operators will be needed, one working inside the box and the other holding the ribbon outside. In such cases it is advisable to stop down well and to burn the ribbon at a greater distance from the negative to give the necessary time for the dodging.

In closing I want to remark that the apparent costliness of the magnesium ribbon ought not to deter any amateur from using it. The ribbon is very thin and narrow and I estimate an ounce coil to contain about 1600 inches. At 75 cents an ounce this would make the cost of a twenty-inch strip less than one cent. I have never actually measured an ounce of the ribbon, but I think my estimate, based on weighing portions of it, very near correct. Then there is considerably less waste of paper than with daylight, and once the amount needed for a certain negative is known any number of prints can be made at any future time by using the same amount of ribbon under the same conditions.

With a Camera in the Redwoods

By WILLIAM S. RICE

Illustrated by the Author

While you, my nature loving companions, are spending your summer vacation in the beautiful region known as Sonoma County, or, for that matter, in any of the counties along the "North Shore," do not fail to take your camera with you as your friend and companion. With its aid try to bring home some of the many beauties of nature that everyone admires but few know how, or care, to photograph; and yet the same people when they see pictures of these subjects are accustomed to exclaim in astonishment at their beauty.



IN THE REDWOOD GROVE

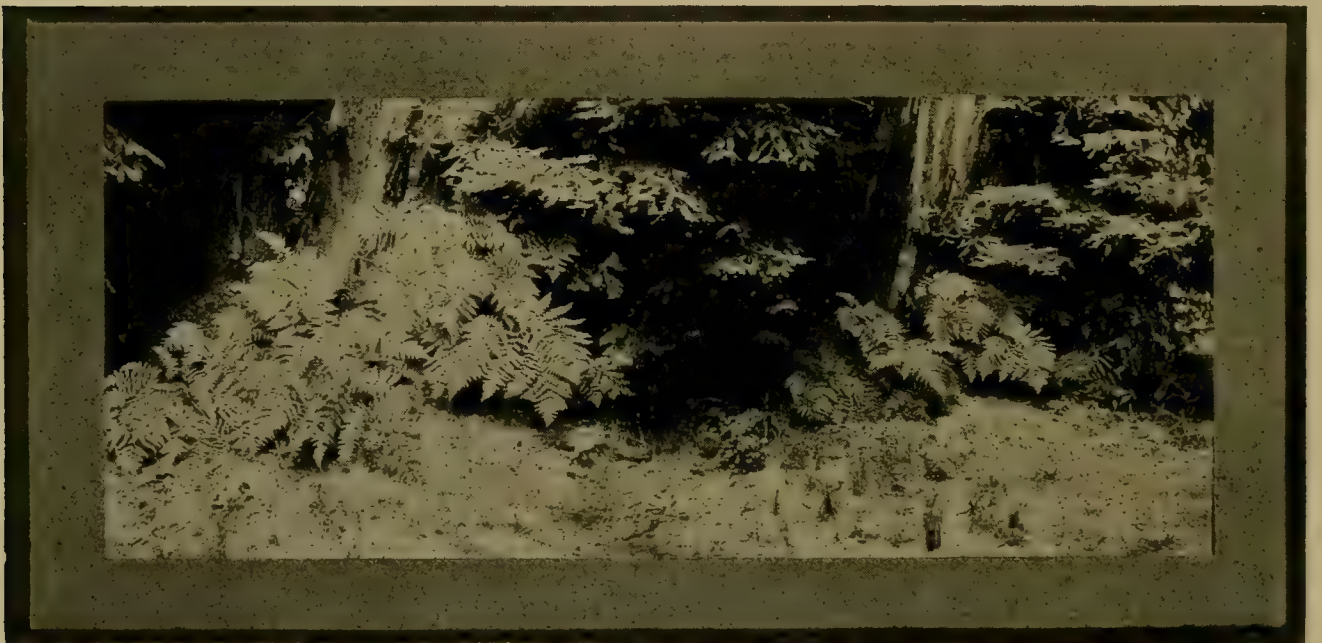
I refer to studies of wood interiors, showing picturesque little by-paths, quiet amber pools shadowed by some graceful alders or redwoods or whitened by the glimmer of the foaming cascade of some mountain torrent. Then there are the graceful ferns, such beauties, too, that you find in the Russian River country.

Everybody ahs and ohs over them and says, "Wouldn't I like to take them home and set them in my city back yard!" but they never dream of photographing those "lovely" groups just where they grow at the base of some patriarchal redwood. Why not photograph such things and leave

the commonplace subjects to others? By making photos of them as you discover a new "find" it will serve to impress the form and characteristics of that particular specimen, not only upon the sensitized paper, but upon your mind as well.

In photographing growing ferns in their native haunts, especially when found growing in rather shaded localities, as for example in a pine, or hemlock wood, considerably more time must be given in making the exposure. Isochromatic plates give truer color values, but good results may be obtained with some of the ordinary films and plates. The best day for this work is one known in photographic dialect as "hazy sun" or a foggy morning when the light is diffused and there is less danger, in a time exposure, of over exposing the lights and more chance of preserving the proper balance in the shadows.

Suppose you go fern hunting with me on a day like the one described.



BRAKE FERN AT THE BASE OF REDWOODS

There is a high fog over the sky, but the light is warm and mellow and high lights on the foliage are not mere white blurs and shadows are clear and luminous. In other words, lights and shades are less contrasty. The air is still, scarcely a leaf is stirring. Just what we want; for in giving time exposures in the dim woods we must not have the slightest movement on the part of ferns or foliage, otherwise the pictures will be mere blurs.

When a suitable group of ferns is found, set up your tripod and focus sharply upon the ferns. Never mind if the background is soft and "fuzzy." Stop the diaphragm to about 32 and expose for about ten or twelve seconds if the light is rather dim. If bright, perhaps five or six seconds will be enough.

Remember, you cannot take time exposures like these, by holding your camera in your hands. Nobody can hold a camera steady enough to do this.

Sometimes it is necessary to tilt the tripod considerably to get a good view of the top of the fern.

Most of the illustrations accompanying this article were obtained with a 4x5 scale focussing folding camera. Of course, when one cannot have a ground glass to focus upon and he is compelled to rely entirely upon his scale for setting the focus for his subject, it is advisable to carry a tape measure to lay off the distance between the camera and the subject; as in guessing at the distance one is prone to err occasionally.

The early morning, before the fog lifts, is the best time to go on a camera "gunning" expedition.

So if you want good fern pictures and wood interiors that are not all "soot and whitewash," let us be up betimes ere the sunlight sparkles through the trees.



FERN GLEN AMONG THE REDWOODS

Now as we continue the search the woods become wilder, huge boulders block the path, and also that of the stream, which leaps from one mossy rock to the other in its descent, singing a lullaby so sweet and soothing to the lover of the cool, green woods that we are almost tempted to give up the hunting and stretch ourselves upon the mossy carpet which Nature has provided, and visit the land of dreams for a brief period.

While we are thus digressing, I spy a group of sword ferns nodding and bending gracefully over the banks of the brook as though endeavoring to see—vain creatures—their mirrored beauty in the amber-colored depths below.

"Well, that composition just suits me, but there is one leaf that worries me considerably, it is that one this way that persists in leaning out

straight toward the camera and is consequently out of focus. 'What am I to do? Break it off?' Not if we can arrange it a bit so that it won't look unnatural or stiff. If it still persists in being unruly we shall cut it off close to the ground. We can't afford to have one leaf out of focus near the center of the picture.

Those brakes and maidenhair ferns peeping shyly from that deep recess of underbrush are just located right to photograph them as they are with the soft light glinting upon them. The background, which is all in shadow, will photograph rather darkly, consequently our ferns will stand out strong and clear against it.

We cannot help noticing as we hunt for ferns, especially if we have had much rain recently, the various grotesque forms of members of the mushroom family, which pop up here, there and everywhere, they too form a very interesting subject for a camera hunt aside from the fact that their collection (the familiar ones), from a gastronomic standpoint, is also very fascinating.



THE LATEST OUT

By NICK BRUEHL

Progress

Again it is a general rule that all the arts and sciences advance together; but this is not without many exceptions. These are not so apparent in the early stages of human progress as in later times. Homer lived and sung when the arts were unborn, or at least in their infancy. The Roman civilization, though advanced in some of the sciences, produced no art except architecture worthy of the name; and in the literary age of Shakespeare and his contemporaries, there was no corresponding sculpture or painting produced in England. In our own time and country, the civilization is extensive and wholesome; the sciences and the more matter-of-fact industries are well developed; but as an offset to them the arts, with some brilliant exceptions, are flippant—witness the poetry, novels, pictures, plays, operas, decorations.—John C. Van Dyke.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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No. 3

A Fifty Dollar Prize

The California Promotion Committee offers a prize of \$50, open to all competitors, for the best panoramic photograph of San Francisco, to be taken on April 18, 1907, one year after the fire, weather conditions permitting, or next suitable day thereafter. The judges who will decide the merits of the photographs are Robert H. Fletcher, Director, San Francisco Institute of Art; William H. Metson, President, Park Commission, and G. Knight White, President, California Camera Club.

CONDITIONS

1. Parties desiring to enter the competition must file their applications not later than April 17, 1907.
2. Each competitor must submit the negative or negatives, accompanied by contact print or prints, on or before April 23, 1907. Preference will be given to photographs taken on April 18.
3. Each negative and photograph must be accompanied by a blank envelope sealed and attached thereto, containing the name and address of the competitor. These envelopes will be numbered as received and not opened until after the award is made.
4. Prices of reproductions in different sizes from 4x10 to 24x60 on velox, bromide and solio papers must accompany each photograph.
5. Successful prize winner must copyright, and assign such copyright to The California Promotion Committee.

It is understood that no reproductions aside from those submitted shall be made from the negatives or from other negatives made on the same days from the same point of view. The negative and photograph of the successful competitor will be retained by and remain the property of The California Promotion Committee. All other negatives will be returned. Successful candidate will probably be given the privilege of reproducing, but no guarantee is given to this effect. It is expected that this competition will result in a panoramic photograph that will best illustrate the work of reconstruction in San Francisco that has been accomplished up to this time. Address all communications to: Judges Panoramic Photograph of San Francisco, California Building, Union Square.

The New Postal Card Law

The public, or rather that part of it that is addicted to the post card habit, seem to be slow in taking advantage of the new ruling which permits of the use of the face of the card for messages as well as the back. The old rules have been in vogue so long that, according to postoffice men, it will take years for the public to become acquainted with the new and more favorable ruling. This new rule reads as follows: "The left hand half of the front of the card may be used for messages as well as the back of the card." Added to this is the statement that photographs may be pasted on either the front or the back of the cards, providing they adhere completely to the card.

An Absurd Game Law

Over in Wyoming they do things in the way of law making that are peculiar, if we can credit the statement of *The Outdoor Life*. As the law now stands, in order to go among the wild game in that state and photograph it, the photographer must first obtain a permit from the state game warden and then employ a special assistant warden to supervise and direct the work at a salary of \$3 a day. This applies only to the first four months in the year, but at the same time the man with a gun is bound by no such conditions. The consistency of such a restriction being placed upon the man who is far and away less detrimental to the game interests than his brother sportsman of the gun is hard to understand. The camera is hardly as destructive an instrument as the rifle, and the photographer, as a rule, less in need of the instruction likely to originate with an assistant game warden on a salary of \$3 a day, than the hunter of bear and lion.

A New Jobbing Firm

The Western Photo Supply Company, with warerooms at 559 East Twelfth Street, Oakland, have incorporated for the purpose of taking over and still further enlarging upon the greatly increased jobbing business heretofore conducted by A. Schlueter & Company, taking the large wholesale stock of this latter firm as a nucleus, to which extensive additions will be made. They have secured the exclusive trade agency for California, Arizona and Nevada, of the Anthony & Scovill Company, the trade agency for Northern California, Arizona and Nevada of the New York photographic papers manufactured by the Mirmont Company, and other connections that will assure them a full and complete line with facilities for the prompt filling of all orders entrusted to their care.

Mr. Fouch in the South

John H. Fouch, one of the best known and most popular traveling men in the Northwest and former proprietor of a stock house in Minneapolis, is covering the southern part of the State for the Sunset Photo Supply Company of this city. His wide experience, his deep knowledge of the business and his faculty of making friends assures him a hearty welcome from the trade in any section he may visit.

American Pictures at the Birmingham Exhibition

By LEWIS LLOYD, Secretary, Birmingham Photographic Society

The Birmingham Photographic Society, which has just held its twenty-second annual exhibition, is again to be congratulated on the very large number of works received from all parts of the Continent and America. The following is a list of countries represented: United States of America, Belgium, France, India, Germany, Italy, Tasmania, Hungary, Austria, Switzerland, and South Africa. It is, however, of the United States entries that I wish to write here. The total entries reached nearly 150; of these about thirty were accepted, the following workers being represented: Annie

W. Brigman, Oakland, Cal.; W. D. Brodhun, Wilkesbarre, Pa.; John Chislett, Indianapolis; W. E. Dassonville, San Francisco; C. G. Dudley, Chicago; G. F. Holman, Portland, Ore.; H. Hendrickson, New York; F. W. Leach, Wilkesbarre, Pa.; F. H. Pratt, Worcester, Mass.; Hana Robison, Berkeley, Cal.; F. M. Somers, Cincinnati; Robert Slack, Denver, and A. Wilhelmj, Spreckels, Cal. The following awards were made to the United States' workers: Silver, Annie W. Brigman, "Soul of the Blasted Pine"; bronze, F. Haven Pratt, "Mother and Child"; honorable mention, Hana Robison, "Study of Classic Head" and "Lost Echo"; Annie W. Brigman, "Dying Cedar."

Of the exhibits one can safely say that they all reach a very high standard of merit. The pictures of Annie W. Brigman have been greatly admired for their originality, both of design and treatment. They are all allegorical subjects, and as such rather fresh to our Birmingham workers. The same can be said of Hana Robison's work. The prints of these two workers have revealed to us in Birmingham what possibilities there are in this style of photography. All are characterized by a delightful softness, in addition to their other excellencies. Among the portraits sent over, the medalled picture of Mr. Pratt is perhaps the finest; it reminds us of Mr. Demachy's work. Robert Slack has also two fine heads, as have F. M. Somers and W. D. Brodhun, of the Wyoming Valley Club. The portrait of Fritz Kreisler, by A. Wilhelmj, has also been much admired.

Several very fine snow scenes were shown; "Snow Shadows," by John Chislett, being the finest rendition of snow we have seen, and his other works are nearly as perfect. C. G. Dudley sent one of his fine snow studies, "Pathless Snow." Mr. Hendrickson's sheep study has very fine quality, but the shed we think a little too obtrusive.

Taken altogether, this American exhibit is of the highest educational value to the amateurs of this district, and we earnestly hope to be favored again next year.

Ozobrome Material

The small shipment of Ozobrome material, which we ordered about two months ago, has come to hand, and we have already filled several orders for a working outfit. We have the pigmenting solution in two-ounce bottles, the plasters, 12x15 size, in warm black, blue black, Vandyke brown and Italian green, and the transfer paper the same size in smooth and medium matt. Several ordered in advance by sending \$5, and as that amount allows us to make up twenty-one and one-half packages of a good assortment it was decided to divide the shipment in that way, making each whole package exactly alike, the supplying of special colors or definite amounts being sure to result in an undesirable assortment as the supply became low. The assortment consists of two bottles of solution, fifteen sheets of the assorted four colors of plaster, and a like number of assorted surfaces of transfer paper. The price, \$5, just covers our own actual cash outlay. A booklet giving full working instructions will be sent with each package. We also have a number of these booklets extra, which we will be pleased

to send on request. The material in one of these packages would cost a worker in England exactly \$3 postpaid. As Mr. Manly advised us in one of his early letters, it will be necessary for us to charge almost double English prices in order to reimburse ourselves for transportation, duty, clearing house and the like. As these charges did not quite equal the original cost, and Mr. Manly gave us the small cash discount, we are in a position to offer these packages at \$5, our only profit being approximately the remaining half package, which will be used for experimental purposes and the results given to our readers in the pages of this magazine. Your early order will be appreciated, as it will enable us to the more intelligently order a further supply if advisable. We would add that as each order is received we will forward the buyer's name to Mr. Manly with a request that new instruction sheets be sent promptly, as he finds it advisable to issue them.

Our May and June Issues Exhausted

While we only have on hand one copy of each of our May and June last issues for our office files, requests for those numbers are still coming in. We, of course, cannot be expected to comply with all these requests at this late date, but several desire these special issues to complete files, and we desire to comply in at least these latter cases. Subscribers or others having copies of one or both of these issues that they can spare will oblige us greatly by sending them to this office. In return we will extend their subscription two months for each copy so sent, or should they not be subscribers we will send them the current and following issue, or issues.

Colorado-Wyoming Photographers' Association Convention

Too late for publication we received a handsome group photograph of the members of the Colorado-Wyoming Photographers' Association, who have just closed their second annual, one of the most successful and enjoyable conventions ever held in the West. The picture was made with the light of an Aristo lamp, and shows the members seated in the Albany Hotel Convention Hall, with a fine display of photographs as a background, and a large table evidently used for demonstration purposes, in the immediate foreground. The convention opened on the morning of March 5th with an address of welcome by Governor Buchtel, who at once put everybody in the best of spirits with his humorous sallies at the expense of himself, the photographers and everybody else. Charles Nast, the secretary of the association, followed with one of his characteristic addresses, from which his brother photographers always look for so much entertainment, and as usual they were not disappointed. Regular business followed and enjoyable and instructive meetings progressed until the evening of the 7th. The following officers were elected for the ensuing year: President, Charles A. Nast, Denver; Vice President, Percy E. Brooks, Denver; Treasurer, B. S. Hopkins, Denver; Secretary, F. E. Post, Denver; Trustees, Burt Goerke, Manitou; R. B. Bingham, Colorado Springs; Frank Dean, Grand Junction; F. H. Seckner, Fort Collins; M. S. Juke, Rawlins, Wyo.

The Aristo School in San Francisco

Despite the fact that the city was practically cut off from the surrounding country at the time, the Aristo School held here, March 20th, 21st and 22nd, under the auspices of Hirsch & Kaiser, was a most successful affair. The registered attendance numbered over one hundred and would have been much larger had there been other than transportation by water available. Hirsch & Kaiser deserve great credit for the large way in which they handled the school, a way that is eminently characteristic of everything which they undertake. As those wishing to attend reported at the Fillmore Street store they were given a most hearty welcome, a handsome button in blue and gold, and dispatched to Franklin Hall, a few doors above, where large and commodious quarters had been secured. This hall, although practically the only one available since the fire and desirable for ordinary purposes, is not well adapted to photographic purposes, and for that reason such operations as necessitated the use of a dark room were somewhat at a disadvantage as to demonstrations.

R. W. Barbeau and J. W. Beattie of the American Aristotype Company, of course, took the star parts and were indefatigable in their efforts to impart all the information possible. Their demonstrations on lighting and practical illustrations as to the methods of securing special effects were given the closest attention by the photographers in attendance. The Aristo lamp, which was used for most of this work and its efficiency as demonstrated by the negatives made, interested the photographers very much. The Folmer & Schwing adjustable focusing attachment that was fitted to the camera used, came in for a large share of approval, as did also the new Auto Studio shutter with which the lens was equipped. The Kodak Dry Mounting machine received much favorable comment for the ease and simplicity with which it dispatched the usually disagreeable work of mounting. William G. Masters, of the Aristo Company, H. W. Oliver of the Seed Company, and George Harkrader, of the Eastman Kodak Company, all Coast representatives, assisted in making the photographers welcome and easing the

work of the school by assisting. A. A. Smith, of the Rochester Optical Company, was also in attendance. A. W. Pye, manager of the Coast branch of the Eastman Kodak Company, came by boat from Sacramento, where they are located until their old quarters in this city can be put in shape for occupancy. Messrs. Wolff, Bacon, Dolan, Withers and Cooling, of the firm of Hirsch & Kaiser, officiated as a reception committee both at the hall and at the firm's store.

Many telegrams and letters were received expressing regrets that the conditions of the roads leading into the city would not allow the senders to be present. Had conditions been favorable there would no doubt have been enough photographers present to have taxed the capacity of the large hall, which was comfortably filled even under the circumstances. All the officers of the Photographers' Association of California were present at some time during the school, with the exception of Mr. Lotz, who is still in the East. At the close a rising vote of thanks and three cheers was tendered the firm of Hirsch & Kaiser for their efforts in behalf of the photographers and the benefits which had resulted from the holding of the school. On the evening of the closing day an informal banquet was tendered by Hirsch & Kaiser to those who had assisted in making the school a success. This function took place at Marchand's and was enjoyed to the full by those present, Messrs. Beattie, Barbeau and Masters of the American Aristotype Company; A. W. Pye and George Harkrader of the Eastman Kodak Company; A. A. Smith of the Rochester Optical Company; H. W. Oliver of the Seed Dry Plate Company, Fayette J. Clute of "Camera Craft," and L. M. Kaiser, William Wolff, George A. Dolan, George Withers, W. O. Bacon and A. C. Cooling of Hirsch & Kaiser. Mr. Hirsch was not able to be present, but sent his regrets. The original intention was to have had all the attendants at the school present, but as the weather was most unfavorable and many were compelled to leave early in the evening, it was impossible to arrange matters with any degree of satisfaction.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

The Removal of Halation

Mr. W. H. Alexander publishes, in "Photography," a method of removing the effects of halation that sounds rational, and for whose efficacy he vouches. It is based upon the principle that in consequence of halation being mostly due to reflection from the back of the plate, the reduced silver is also in this plane, and consequently lies below the layer of emulsion containing the image. As development proceeds from the surface downwards the true image is developed before the halation is reached. Mr. Alexander's remedy for a negative showing halation is to bleach it and then slowly re-develop with a weak solution to the point where the halation image is reached but not developed; a point indicated by the first appearance of blackening at the back of the plate. The negative is then fixed out in hypo, so removing the undeveloped silver. Mr. Alexander used a bichromate bleacher with a somewhat complicated process for washing. Obviously the well-known ferricyanide bleacher used in sulphur toning would be just as efficacious, and in some respects better, as it does not intensify as the bichromate bleachers do. Furthermore, it seems to me that if Mr. Alexander's theory is correct we ought to be able to reach the same result by slow development and early fixation of the original plate, providing we know it to be a subject likely to show halation.

The Use of a Thickened Developer

T. P. Parker, writing in the English "Amateur Photographer," gives a formula consisting of equal parts of normal developer and "Golden Syrup" (drips), for which he claims many advantages. Foremost, that by its aid shadow detail may be forced out without blocking the high lights; so that better gradation is secured.

Also he claims finer grain for the resulting negatives or lantern slides. When used for gaslight or bromide paper the exposure is to be three or four times the normal. I have used glycerine in this way, smeared on to portions of a print I wished to hold back, and have no doubt but that golden syrup would act in precisely the same manner, while costing much less.

Bromide Pigment Paper

Ozobrome has already a rival, though one of doubtful success. The "Neuen Photographische Gesellschaft" has placed a new paper on the market whose nature and mode of working are described by Hans Schmidt in "Photographische Mittheilungen." It consists of a bromide paper to the emulsion of which pigment of various colors has been added, as in ordinary carbon tissue. Exposure is made in the usual manner and development carried out with the oxalate of iron developer (no other), and after the acetic acid bath, the paper is transferred for three minutes to a bath consisting of:

Four per cent. bichromate of pot-	
ash solution	100 parts
Ten per cent. alum solution.....	5 parts

As a result of this treatment the silver image, acting with the bichromate, brings about an insolubilization of the pigmented gelatine proportional to its mass, so that the film now contains a pigment image superimposed on the silver one. The print is now washed for three minutes in running water and squeezed into contact with a transfer paper. From then on it is developed as a carbon print with warm water; the unchanged silver bromide is removed by hypo and, if desired, the underlying silver image can be removed with Farmer's reducer, or it can be left to add strength to the pigment image. I have no account of the actual

results yielded by these papers, and can only note that it seems to lack many of the advantages of ozobrome; on the other hand, only one paper is employed, and possibly the scale of gradation may be longer, though this is unlikely.

Red Chalk Bromides

One more formula for toned bromides has been added to our list by A. H. Dunning, who finds that excellent results are obtained by immersing sulphur-toned bromides in a bath compounded of:

Chloride of gold..... 10 grains
Ammonium sulphocyanide.....100 grains
Water 100 ounces

A Distance Table for Flashlight

The following table, given in the "Photographic News," is advanced as a guide for the correct amount of pure magnesium necessary for lighting a portrait at certain distances, using stop f-11 and an extra rapid plate:

Distance of Light from Subject in feet.	Grains of Magnesium Required.
10.....	20
15.....	45
20.....	80
25.....	125
30.....	180
35.....	245
40.....	320
45.....	405
50.....	500

For ascertaining the quantity of light necessary for any other distance it should be remembered that here the value of the illuminant varies conversely as the square of its distance. Taking five grains of powder, therefore, as sufficient to light a portrait at five feet distance (five feet is much too near, however, for most practical work, as the lighting would be very harsh), it is easy to ascertain any other amount necessary for any given distance.

Temporary Fixation of Solio Prints

The demonstration given at the Royal Photographic Society by Mr. Bolas recently, is a reminder of the modern application of the ancient fixing process which Fox Talbot used. Talbot got rid

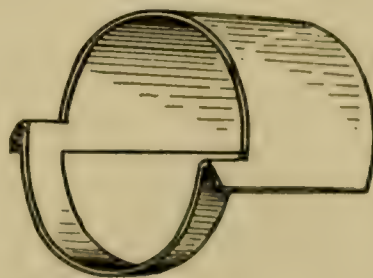
of the excess of silver in his paper by treatment with sodium chloride and iodide, and by so doing removed the liability of the paper to darken further. Precisely the same principle can be applied to P. O. P. in making prints intended to serve a purely temporary purpose. By printing out only to the depths required and treating for five minutes in a ten per cent. solution of common salt, a print is obtained which will answer all ordinary exposure to light for a day or two. Equally may it be used in making enlarged negatives by direct enlargement in the camera, by which method a comparatively weak light can be used. The print thus treated will not stand exposure to a very strong illuminant, the electric arc at close quarters, for example.—"The British Journal of Photography."

A Simple Lens Shade

The following description of a lens shade by Major Frank Young, in "Photography," is really an excellent thing. I have tried it, and nothing could be better. If paper is found too fragile, a piece of thin leather will be found effective:

"Material required is a piece of black paper from a spool film. A length of this paper is cut, about two-thirds the circumference of the lens and of less width, to be adjusted later. Along one longer edge

a line is cut with a sharp knife exactly half times the diameter of one and one the lens hood, and about $\frac{3}{8}$ of an inch from the



edge of the paper. The piece of paper is then bent to the shape shown in the illustration and slipped over the lens hood. The correct length of A B may be found by trial, by seeing how long a piece of paper may be without obstructing the image of some well-marked object at the extreme corners of the ground glass. I have used a lamp at night for this purpose. I find it useful to paste a small piece of paper on each side, at each end of the slit, to strengthen it against rough usage in putting it on the lens.

The Amateur and His Troubles

By FAYETTE J. CLUTE

A Sane Dark Room

I had a talk with a prominent amateur from the East the other day. He was out here on a visit and having a few plates to develop I introduced him to a friend who had a most elaborate dark room, and he was promptly given full swing. Meeting him later I asked if he found all the facilities necessary, expecting him to compliment my friend on the excellent dark room which he possessed. Strange to say, he did not enthuse over the subject in the least. Forced to give me his opinion, he finally admitted that, according to his ideas, the dark room was entirely too large and too well arranged, in fact, it was evidently intended that all the work possible should be done in the room. His own was different. It was a portion of a basement partitioned off and was just barely large enough to turn around in. Its small size made it much easier to warm in cold weather or cool in summer. Its small size had made perfect ventilation plainly necessary and that was easily secured. All that one really needed in a dark room was a small sink and running water, a portable fixing bath of upright form, a shelf that would hold the plate-holders and their slides and another that would hold a large graduate and a small one together with a small bottle of bromide solution. His dark room was so small that he believed three or four ounces of calcium chloride would keep it as dry as a bone were it inclined to dampness; a wet towel would keep it cool, or a hot flat-iron warm it. All the other operations except the actual development of the plate were daylight work. One had no need of mixing the developer in a poor light. With a few exceptions the chemicals were better kept in a less trying atmosphere, even if exposed to good light. Those that were affected by light could be easily kept in a small cupboard in the larger room, which the remainder

of the front basement afforded. When development was complete he simply carried his fixing tank into the larger room and washed the negatives in a good light and in comfort. There is a good deal of truth in this contention of my Eastern friend. The smaller room is certainly the most sane arrangement. The light is on a shelf outside and the illumination filters through an old glass dipping bath, a relic of wet plate days that can be picked up at the stock houses for very little cash, filled with a solution of bichromate of potassium. This gives a safe light with a wonderful amount of comfort on account of its abundance. The inside of the room is painted white, a point which we have often advised, and this adds to the comfort. The whitest of white walls will reflect no more light than it receives and all it can receive is from the lamp. If that is safe it is easy to see that any reflected light will be equally so. If special color sensitive plates are to be developed it is an easy matter to have an extra sheet or two of the right kind of glass to interpose from the inside of the room. Another convenience is a light-tight box or drawer in which the tray may be placed should it be found necessary to leave the room before development is complete in order to secure a further supply of developer, fix the light or for any other reason.

Carbon Prints from Weak Negatives

With a skilled worker, the complaint that good carbon prints can not be made from weak negatives has little meaning. There are three separate and distinct ways of improving the results from such a negative and by availing oneself of them all, a carbon print that is excessively contrasty can be secured from the weakest printable negative. Weakening the sensitizing bath has quite an appreciable effect and the

strength of the bath, as ordinarily used, can be reduced over one-half; in the case of a tissue containing a large amount of pigment the bichromate bath can be reduced to a strength of one-half of one per cent. to advantage. A much longer exposure will be required in printing. This brings us to the matter of the pigment in the tissue and one will find that a very dark tissue, particularly the transparency black, seem better suited for thin negatives. The third method of improving the results applies to the negative. This should be intensified in the well-known uranium intensifier, first being sure that all hypo has been removed from the film. Unless the negative is decidedly lacking in detail it will also be best to clear it up of any slight fog or veiling by the short application of a fairly strong solution of Farmer's reducer. Before applying the reducer be careful to remove any greasy finger prints by the application of a little benzine on a tuft of cotton. The advantage of a short application of a strong reducer lies in the fact that its action will be confined to the surface of the film—where the fog is most likely to be located. This slight reduction should be followed by generous washing and then the intensifier applied. The formula is as follows:

Uranium nitrate, ten per cent.
 solution $\frac{1}{4}$ ounce
 Potassium ferricyanide, ten per
 cent. solution $\frac{1}{4}$ ounce
 Acetic acid, glacial $\frac{1}{2}$ ounce
 Water 7 ounces

Applying these several methods of securing added contrast in the finished result will insure the maximum amount of improvement and, except in the case of the most hopeless negatives, the results will show a greater improvement than would be possible on any other printing medium.

Developing on Tour

Talking with a traveling man the other day I found that he had carried a small plate camera for a number of years, claiming that the roll-film variety was too great a temptation to snap off exposures that were really not wanted. He does all his developing as he goes along, and uses a simple developer that requires but little attention. He claims that what the aver-

age amateur blames to wrong development, incorrect exposure and lack of control in development, is mostly due to an unsafe light, or a room that leaks light, being used while the plates are developed. His plan is to use a little aniline red in his developer—erythrosine red is what he prefers—and slip the plate quickly into the solution; just enough to give the developer a red tint is enough. It may stain the film a little, and that is sometimes an advantage, although the stain can be removed very easily with a weak solution of ammonia. A lot of amateur workers are fogging their plates with an unsafe light, and the experiment is well worth trying. An old hand could use the same light with safety, because he would stand well back and keep the plate in the tray, but the beginner crowds up close to the lamp and holds the negative up before the light a great deal more than there is any necessity for doing. For that reason he often finds a veiling slowly creeping over the image, which not only disturbs his judgment as to the density, but leads him to imagine over-exposure or a poor developer is to blame.

The Cause of Pinholes

E. Stanley Thomas, of Fremont, Ohio, writes giving some good advice on the avoidance of pinholes in glass plate negatives. He says: As we all know, these troublesome spots are, in 99 out of 100 cases, caused by particles of dust adhering to the surface of the plate, and if we can avoid or get rid of them a great deal of the annoyance which they cause will be obviated. We are often advised to dust the plates when loading the holders and again before developing, but the suggestion is not a good one. The mere passing of the brush over the plate, particularly in cold weather, will electrify it enough to cause it to attract floating particles of dust, which adhere and cause pinholes later. A better plan is to acquire the habit of holding the plate at a slight angle with the emulsion side underneath and strike it a slight blow on the edge of the shelf or table, doing this just before placing plate in the developer. This will dislodge any bits of dust that may have fallen on the emulsion from the paper and packing of the plate box, or elsewhere. The place to look for dust is in the light trap that is lined with a piece of felt and wipes the slide as it is inserted or removed.

dust and enough to make quite a respectable pile removed from each side. Another most profitable "lead" when one is looking for dust, is the crease formed by every fold of the bellows. To remove this, sprinkle a few drops of glycerine on a piece of soft cloth and hang in a warm place over night. The next day the cloth will be evenly saturated with the glycerine, and if it be used as a duster it will gather up and remove the dust in a way that a dry or dampened cloth would not, and will not damage the bellows as a wet one might. It is also a good plan to filter developing solutions just before use if it can be done without exposing unduly to the air. There is, however, less danger from this source and if care is taken not to disturb any sediment at the bottom of the bottle, it will hardly pay for the trouble and added liability to oxidization which the exposure to the air involves.

Look Pleasant, Please

A great many amateurs acquire a bad habit of making some such request of their sitters when doing portrait or group work. They fall into the practice through a false impression that it sounds so professional like or that it impresses their subjects with a feeling of their familiarity with that class of work. Nothing could be further wrong than the idea that the request is of any value. Instead of calling up an improvement in even the most trying case of facial ferocity, it merely supplants it with an expression of simpering vacuity that is as objectionable as it is different from a really pleasant one. A word of jest at the right moment will bring up a much more pleasing and natural expression where such is desired and an expression of joy, however modified, is not characteristic of all sitters.

Iodine Toning for Bromides

Prints to be toned by this process must be free from hypo. They are first immersed in a solution made by diluting the following to a deep sherry color: Pure iodine, one-half ounce; iodine of potash, one ounce; water, sixteen ounces. Allow the print to remain in this until the whites show quite dark and the darks of the print are white, and then

follow with a weak solution of sulphite of soda in which the prints will bleach entirely out. Rinse slightly and then place in a weak solution of sulphide of ammonium in which the prints will turn a rich sepia.

Hypo-Allum Toning for Bromides

In reply to another correspondent, I would say that my own experience leads me to favor the use of the solution cold. I believe the tones are better, and while it takes longer, the actual time devoted to the work is much less, as one simply has to immerse the prints and see that all air bubbles are removed, and then allow the solution to do its work. There is no danger of overdoing the matter, as the action ceases when a particular point is reached. The solution must of course be mixed up by the employment of heat, despite the fact that it is to be used cold. Prints toned in the cold bath are reduced somewhat more than is the case when the hot solution is used, and of course this must be allowed for in printing. Using the bath cold for some prints and hot for others gives one an opportunity of taking advantage of this latter property by submitting the weaker prints to the hot solution and the stronger ones to the other.

Wax for Bottle Corks

A dealer in Canada is putting out several ready prepared solutions and desires information as to a wax that will not be acted upon by volatile liquids, as is the ordinary wax. I would advise that he try the following gelatinous compound, which has been found to answer admirably. Four ounces of soft gelatine are melted in twelve ounces of water and then two and one-half ounces of glycerine are added by stirring. A little coloring matter makes the finish more attractive. The stoppered necks are dipped in this solution, and if necessary a second immersion given to secure the desired thickness. The top of the cork can be stamped with a seal or mark if the metal be slightly greased and the impression made before the wax becomes thoroughly set. An india rubber stamp will also prove effective if the color of the ink used is such that the letters show prominently.

I have seen old holders emptied of this

Our Book Shelf

The Hand Camera

In England, Iliffe & Sons' "Photography Bookshelf" series is too well and favorably known to require any introduction. This country is notably behind England in its appreciation of good books on photographic subjects. This is in a great measure due to the disinclination of dealers to stock a generous supply, and these gentlemen in turn have a fairly good excuse in the fact that business in this country is so widely scattered that they are not justified in carrying much other than the most rapidly-moving lines. The average amateur is inclined to hesitate before ordering books that he has not seen, but this should not, and would not, be the case were he aware of the large number of remarkably instructive books that are listed at most modest prices and sent promptly by Tennant & Ward, 287 Fourth Avenue, New York. "The Hand Camera," Iliffe & Sons' "Photographic Bookshelf" series, is an example in point. Its authors, W. L. F. Wastell and R. Child Bayley, are two of the best-known workers in England, and they can certainly offer advice that will be helpful to any worker. The price is 50 cents.

Photography by Rule

This is the title of another of the "Photographic Bookshelf" series. It is the publication in book form of one of the most popular series of articles which ever appeared in the English photographic magazines, after being revised and added to for the purpose. Its author, John Sterry, is an authority on all photographic subjects, and, in addition to this, has the happy faculty of imparting information in a clear and convincing manner. Reading, as we did, the series of articles as they appeared over a year ago, one could easily believe that a beginner, following the directions laid down, should be able to make a good print on developing paper from an excellent negative of his own making within a week of taking up the practice of photography. In fact, following the directions,

he could hardly do otherwise than produce a good one every time, and, what would be of even more importance, know the "why" of every step of the work. Fifty cents. Tennant & Ward, New York.

Practical Orthochromatic Photography

Still another of the same series as above, by Arthur Payne, F. C. S., at the same price; and obtainable through Tennant & Ward. In passing we would like to say that any reader desiring books on any photographic subject is perfectly safe in placing himself in the hands of Tennant & Ward. This firm carefully avoids the appearance even of any inclination to unload undesirable or out-of-date books upon its customers, and a request for a list of titles than can be recommended on any subject will receive prompt attention. Several of our correspondents have written them to send anything they could recommend on certain subjects, and have been greatly pleased at the treatment received. Returning to the above title, the book is a most successful endeavor to explain the principles and practice of orthochromatic photography in simple but accurate language. All of the "Bookshelf" series are well bound in cloth-covered boards, and contain necessary illustrations and diagrams. Where desired, orders may be sent direct to Iliffe & Sons, Limited, 20 Tudor Street, London, E. C., England. The series at present contains some twenty-six titles, all of which are obtainable of Tennant & Ward, New York.

The Moving Picture World

The above is the title of the latest addition to the field of photographic publications. The first number has just reached our table, and shows itself to be a bright and aggressive weekly that is, no doubt, covering its particular field of animated picture, cinematograph projection and lantern work, most thoroughly. The subscription price is \$2.00, and the publishers, The World Photographic Publishing Company, 361 Broadway, New York.

Notes and Comment

"Bissell Colleges"

This is the title of the annual prospectus of the Illinois College of Photography and the Bissell College of Photo-engraving, a copy of which has just reached our desk. It is quite a pretentious booklet of sixty-four pages, and should prove quite interesting to any one contemplating the taking up of either photography or photo-engraving as a study. Both colleges are evidently well fitted up for the instruction of pupils, and, having been in operation for a number of years, the management could no doubt give prospective patrons the names and addresses of former pupils in their locality who would recommend the college and its methods of instruction. Their location, Effingham, Illinois, is a most central one and makes the entire country tributary to it to an extent that could not be realized in a school that was located either in the extreme East or West.

Probus in the East

The well known firm of George Murphy, Incorporated, 57 East Ninth Street, New York, have secured the eastern agency for Probus Preservative Paint, Probus Trays and other products manufactured by Wolff & Dolan of this city. The increased demand for Probus goods has made it necessary to have a New York distributing point, and the firm of George Murphy, Incorporated, being agents and distributors for a large number of the leading foreign and American manufacturers, a better selection could not have been made. That a firm of their high standing should endorse the Probus products by making it a special feature of their large line of standard goods is assurance that Probus has met the most severe and trying tests. While the matter is, of course, worth mentioning in that connection, it should not be understood that such recognition is at all surprising when the phenomenal popularity of Probus is held in mind.

\$25,000 Given Away

Curt, Teich & Co., of Chicago, Illinois, have made a wager with one of the largest Eastern houses that they would sell at least ten thousand orders from their February "Postal Monthly." In order to do this they have decided to give away ten thousand of their New "Success" Post Card Racks. Full particulars of this novel and extraordinary offer will be found in the February issue of the "Postal Monthly" which they send free to all dealers in Post Cards. If you have not received a copy, send your name and address.

"Shop Notes for 1907"

This is the title of the third of this popular series gotten out by "Popular Mechanics," Chicago. Everybody knows the value of the material that fills that popular mechanical journal from month to month, and it is only necessary for us to explain that the matter that composes this volume, like that of its two predecessors, is gleaned from the pages of the monthly for the year closing with its date. The book is regular magazine size as to page and the titles covered by the last volume number somewhat over a thousand, including everything from plumbing to photography. We are all more or less of a mechanical turn of mind, and there are hundreds of kinks and helps in the book that will prove of interest to everybody who is at all desirous of doing things in the most practical and sensible manner. We have not taken the time to count them, but there must be over twelve hundred illustrations, the pages numbering over six hundred, and while many of them contain three illustrations, a few have but one. The single volume sells for fifty cents or the three, the 1905, 1906 and 1907 issues, will be furnished in a neat cardboard case for one dollar. "Popular Mechanics," Journal Building, Chicago, Illinois.

Club Notes

Postal Photographic Club

This organization, which dates back to 1885, and has for its object the circulation of a monthly album containing prints contributed by its forty members, together with note books for criticisms, and the like, is maintaining its high standard. While the remoteness of the Pacific Coast unfortunately makes it impracticable to send the albums so great a distance, we so frequently hear of noteworthy prints to be found in the albums, making it most regrettable that some combination cannot be formed whereby they can be spared for a month or so by our eastern brethren in order that they may circulate among some of our workers on the Coast. G. A. Brandt has for a number of years been the efficient secretary of the club. It is really mainly upon the secretary that the burden of the work falls. Albert Le Breton, one of the directors of the California Camera Club, who was for many years the president of the Postal Photographic Club, pays a very high tribute to the ability of Mr. Brandt as secretary. Last New Year's night the Washington members of the club, in company with William T. Knox, one of the New York members, who came to Washington for the express purpose, called at the home of Mr. Brandt on Maryland Avenue, ostensibly for the purpose of making an informal visit. Mr. Fairman made a speech in his inimitable style, dwelling particularly upon the long, faithful and able services which Mr. Brandt had rendered the club during his term of office. He wound up by presenting an elegant silver loving cup, suitably engraved as a testimonial of the high esteem of the members for their worthy secretary. Mr. Brandt was completely surprised, so much so that he experienced some difficulty in framing a reply that would do justice to his feelings, but his discomfiture was much more appreciated by his guests than would have been the best studied speech which could have been prepared. An enjoyable evening was spent and

one which will be long remembered by those who were present.

Chicago Camera Club

The regular monthly meeting of this enterprising club was held at their rooms in the Northwestern University Building February 21st, with a large number in attendance. The feature of the evening was a demonstration arranged by the local representative of the Cramer Dry Plate Company which proved most interesting, particularly that part covering lantern slide work. The lecture on posing and lighting, by Mr. Monfort, was postponed until some future date. The announcement gotten out by the secretary, Clarence B. Hale, urges the members to get their friends interested in the work of the club and the suggestion will no doubt be acted upon as those already enjoying membership are most enthusiastic in their praise of the benefits derived from the meetings and their connection with the club.

March 7th, set of interchange slides and a special set of slides from negatives taken with Graflex camera. This latter set is with the compliments of Folmer & Schwing, the manufacturers of the Graflex. March 14th, one of our school nights. Subject: "After Treatment of Bromide Papers," by Geo. C. Elmberger. March 21st, lecture by Mr. Montfort. Subject: "Posing and Lighting." This is the lecture scheduled for February 21st on our former announcement. March 28th, set of Interchange Slides with criticism and talk on composition, by Louis A. Lamb. There will be no further announcement of meetings during the month of March.

Through the courtesy of the management of the Art Institute, tickets of membership in the Chicago Camera Club will be accepted during the duration of the Salon as admitting the member only, free of charge at all times the Institute may be regularly open.

CLARENCE B. HALE, Secretary.

California Camera Club

The members of this popular organization and their friends were charmingly entertained on Friday evening, January 21, at Christian Science Hall, by Mrs. Florence Delanoy L. Eichwaldt, who lectured on "Russia, the Land of Violent Contrasts." Mrs. Eichwaldt, who is a native Californian, married into a well known Russian family, and thus became exceptionally favorably situated to study the customs and habits of the people during her stay in Russia. Mrs. Eichwaldt, who has a very attractive personality, appeared in the costume of a Russian peasant and took her hearers through the principal cities and the various walks of life in that vast empire. The set of views was far above the average presented by most lecturers and her many excellent reproductions of the Kremlin, the greatest aggregation of buildings in the world, elicited much applause. Indeed, the lecture was voted the best given by the club since the great disaster.

The club is in a very favorable condition, and, in some respects, is better equipped for photographic work than ever. The names of some twenty applicants for active membership are now posted on the bulletin board, to come up at the next meeting of the board of directors. The nominating committee has submitted the following as the "regular ticket," at the annual election of officers, to be held in April: President, Albert Le Breton; First Vice President, E. J. Dollard; Second Vice President, Dr. K. O. Steers; Secretary, Dr. E. G. Eisen; Treasurer, H. T. Henning; Corresponding Secretary, E. N. Sewell, and Librarian, H. E. Poehlman. Additional Directors: Geo. Otis Mitchell, L. D. Hitzeroth, Sidney Sprout and Marcel Tan-

Beginning Monday, March 4th, there has been on exhibition at the club rooms, 2206 Steiner Street, a very full and well selected exhibit of the world famous Indian studies and landscapes by E. S. Curtis. The collection includes several examples of the remarkable painting like multiple-gum prints, which have attracted so much attention wherever shown. The club is particularly fortunate in being able to show this fine collection to its members and their friends, as an admission fee and the inconvenience of a public exhibition has been heretofore found necessary when showing these pic-

tures in other cities. The local readers of this magazine are showing particular interest in the exhibition on account of the very full description which Mr. Muhr furnished for these pages a few months ago, of the process by which these multiple-gum prints were produced in Mr. Curtis' studio.

Wisconsin Camera Club

This wide-awake club, located at 623 Grand Avenue, Milwaukee, Wisconsin, sends us a program for March which covers the following: Tuesday, March 5th—Talk on composition, by Prof. Alexander Mueller—the second of a series of five lessons. The first lesson to be reviewed and a new problem assigned. Members are expected to bring prints for criticism. Tuesday, March 12th—Lantern slides showing pictures taken with the Graflex camera. Tuesday, March 19th—Demonstration on printing-out paper, by J. A. Hood. Tuesday, March 26th—Opening of Third American Salon. Members, their friends and the Press are invited. The salon will be held at the rooms of the club, and will be open to the public from 10 a. m. to 9 p. m., daily, from March 27th to April 5th. Members will please send in lists of names to whom they would like to have special invitations sent. The club's general print contest, the last of the present series, closes May 6th. The executive committee of the club meets the first Tuesday of each month at 7:30 p. m. This is a very inviting program and one that should tempt every camera user in Milwaukee to at once put in his application for membership. The value of association with a live organization of this kind can hardly be estimated in factors of dollars paid out as dues and initiation fee.

A Set of Lantern Slides for Camera Club Exhibitions

Folmer & Schwing Co., of Rochester, N. Y., has a very fine set of lantern slides, made from Graflex negatives. A very wide range of subjects is embraced, and most of them, by reason of the remarkable camera work, are of unusual interest. These slides are at the service of any of the camera clubs who may desire to secure the use of them for any of their meetings. Write direct to Folmer & Schwing Co., Rochester, N. Y.

CAMERA CRAFT



San Francisco, California

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CAMERA CRAFT

1915 POST STREET

SAN FRANCISCO, CALIFORNIA



IRENE
By MYRA A. WIGGINS

CAMERA CRAFT

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No. 4

Photographs for Fiction Illustrations

By C. H. CLAUDY

Illustrated With Selections from the Work of Edwin R. Jackson

There are many things the photographer can do to improve his work, not the least of which is the taking up of some one specialty and becoming expert in it, to the exclusion of other work. But after all the various technical processes of interest to any one individual have been tried and worked out to his satisfaction, some broader field of photographic endeavor must be found to keep up the enthusiasm. Of these fields, pictorial work is the most generally adopted, and frequently the most poorly mastered. Your real pictorialist is made, and not born, and the making is done by thorough hard study of art principles, combined with a good knowledge of photography. Of course, many of us make photographs which are pictures, now and then, without any real comprehension of the true inwardness of picture making. If you photograph often enough and long enough, you are bound to hit it sometimes, in spite of yourself. But such successes are not the result of artistic effort, but of chance.

The man who has sense enough to know his own limitations is in a fair way to become a better worker than he whose confidence in himself and satisfaction in his own work is so limitless as to beget in him a desire to attain the impossible. For the man who knows that he does not know enough of art, or who feels the lack of the art instinct enough to realize he can never be a great pictorialist, the field indicated in the title offers at once an inviting prospect and enough hard work to make its pursuit interesting.

Now, mark you, nothing that I have said or shall say is to be construed into an argument on my part that illustrations for fiction should not, or can not be, pictorial in the highest degree. But, and this is the point, a good fiction illustration does not necessarily have to be a good picture, judged from the artist's standpoint. For confirmation of this fairly evident fact, pick up any high-grade magazine and look carefully at the illustrations which accompany some of the short stories. You will find them by the scores, interesting, illustrative of the action, mood or thought in point, full of carrying power of the author's meaning, but violating in many particulars the canons of the artist. The arrangement may be bad—frequently is—, the tonal values all wrong, the drawing, even, out of perspective, and yet the picture as a whole conveys to the reader's mind a vivid impression of the scene the author has built his story around, or the incident which gives title to the illustration.



"IT AIN'T MUCH, BUT IT'S SOMETHING"

By R. E. JACKSON

Now if that same illustration had been thoroughly artistic, it might, probably would, have been better, but if it had been artistic merely and lacking in its trapping and holding of the spirit of the story-teller, then it would be the worse and not improved by its art. In this way, the photographer who lacks either art sense or art knowledge has a field where he may strive for both, in connection with that illusive quality of illustrativeness, and, if he gains the latter, may be well content that the success of his efforts towards the former is indifferent. But he will find it very, very difficult to catch the idea and spirit of the author, and make his pictures look as if they were photographs of the scene or incident or person in question and not of something or somebody "dressing up" for the part.

It may make my meaning clearer if you will recall to mind the books so popular a few years ago, in which the story was illustrated from photographs of the plays made from the book. When you see Mrs. Fiske play Becky Sharp, you see Becky Sharp, her passion, her waywardness, her lack of moral sense, her lovable unlovableness—you don't see Mrs. Fiske at all. But when you read Becky Sharp's speeches in *Vanity Fair*, your copy of which is illustrated by photographs of Mrs. Fiske in the part, the effect is quite different. On the stage you forget the unreality of the scenery and the surroundings in the life and action of her art. In the book the unreality of the stage illustration is painfully apparent. As a souvenir of Mrs. Fiske and her company the book is excellent—as a well illustrated book it is a flat failure.

Photography is as yet but little used as a maker of illustrations for fiction for that very reason, the unreality which pervades the pictures so made. You can't help wondering who posed for them, what they thought, whether they were interested in their work or not, and whether they had read or understood the part they impersonated. Yet it can be done and has been done and will be done again.

I recall one example which some of you are probably familiar with, and that is Oliphant's "Bob, Son of Battle." This beautiful story is of a sheep dog in Scotland, and the characters are those of his masters and their friends, the dog, other dogs, and the sheep. Doubleday, Page & Co. sent Radclyffe Dugmore to Scotland to illustrate their edition of the book with photographs, the pictures to be taken in the scenes in which the story is laid, and of living



"IT'S AN INDIAN, BILL"

By E. R. JACKSON

"LOVE'S A FARCE AFTER ALL"

men, women, dogs and sheep as closely resembling the characters in the book as possible.

This set of illustrations—I believe there are twenty-four—is as fine a set of fictional photographs as could be made, and is far superior to many subsequent sets of other stories by photographers of even greater pictorial reputation than Mr. Dugmore. I do not know, of course, how many plates he exposed, or what proportion his failures bore to the final results, but no matter how heavy his plate losses were, the pictures as published must have been an ample reward. With one or two exceptions, they do not strike one as beautiful photographs, but as beautiful illustrations. It is the illustrative quality which makes its appeal first. Of course, it must not be forgotten that Mr. Dugmore had fine materials with which to work, the natural scenery



"JIM RAISED HIMSELF AND FIRED HIS LAST SHOT"

By E. R. JACKSON

being exquisite and the characters looking the parts without too much change from their natural selves. But his grouping and arrangement, the manner in which he handled his animal characters alone, and in conjunction with their human friends, is admirable. The study of this set of illustrations will well repay any one attempting similar work.

I do not suggest the taking up of this branch of photography with the idea of making money by it, or of getting illustrations accepted by book publishers or magazines. But any one who will faithfully try to illustrate a bit of fiction with the camera will not be able to help being benefited, inas-

much as the very attempt, no matter how sorry a failure, must teach the experimenter much. I would suggest first the attempt to group some characters as nearly as possible as they are in some artist's illustration for fiction. Pay attention to details of dress, accessories and bearing and particularly to background. Then, if this task is accomplished with moderate success, try to make an illustration for some story which has none. Take a simple scene, with but one or two people in it and try to express in their pose and expression the sentiments they, as characters in the story, felt at the time. Keep away from too much sharpness and detail, let the background be very subdued indeed, unless the background is the motif, when the characters should be the part suggestive rather than prominent. Get your friends to pose, but get friends who are interested in what you are trying to do, and not those who are simply desirous of having their pictures taken. For the models are the keynote to the undertaking, and be you ever so good a worker, you cannot create unconsciousness out of its opposite, or naturalness in a character from stiffness in the model.

Do not be content with one trial. Make the same effort on the same subject a dozen times, correcting the faults as you see them as you go along, and then see if you have not both broadened your photographic view point and increased your knowledge of what is essential in both picture making and illustration.



"THE TRAIL LIES OVER THERE"

BY E. R. JACKSON

Poisoning in Photography: A Remedy

By SAMUEL PURNELL

It is well known among steady workers in platinum papers that in some individual cases they become painfully afflicted with a peculiar nasal catarrh, with obstinate sores on the backs of the fingers and hands, and on the insides of the wrists. There is also general weakness and bad feelings throughout the body. All medical treatment has heretofore failed to perform cures, and in many instances those afflicted have been forced to turn to some other occupation, after which they soon recover. Whether the poisoning is due to the ferric oxalate and the platinum salt with which the paper is coated, or to the potassium oxalate used in the developer, all of which are poisonous, or to all combined, is yet unknown; but as to the actual poisoning, more or less rapid and severe, according to systemic susceptibility and amount and duration of work, that is only too well known. Some persons, comparatively insusceptible, may not be injuriously affected for a long time; the occasional worker not at all.

Having recently passed through a severe and long-continued attack of platinum poisoning, and having at length been rapidly and thoroughly healed without medicine and almost without price and trouble, by my own discovery, I take pleasure in advising co-workers what has not only cured me, but prevented a return of the trouble. I now enjoy seeming immunity, although continually using the platinum process. The remedy lies in simply employing a solution of common salt, sodium chloride. To heal the sores on the hands, put half a gallon of hot water in a basin, and dissolve in it about two large tablespoonfuls of common salt; immerse the hands and wrists in this, and keep them in it for about ten minutes. Rinse off the salt water and dry the hands. Do this twice a day—in the morning before commencing work and in the evening when quitting. The sores will rapidly heal. To cure the nasal catarrh, make a weak solution of salt water, a small teaspoonful of salt (or such quantity as feels agreeable to the nose) to a pint of water heated to about the temperature of the human body, and snuff a portion of it into the nose twice a day; or use a nasal douche. Bath the eyes in this also, if they are affected. If a steady worker in platinum papers, use these solutions once a day as a preventative. In addition, I would urge sufferers to take a Turkish or a steam bath at least once a week to stimulate the skin to assist in eliminating the poison; to always have a good circulation of fresh air in the printing room; to avoid breathing the dust from the papers; to try to keep the body and all its functions as healthy as possible; to avoid all depressing and weakening thoughts and conduct. Take no internal medicines, nor apply any ointments; they have not been found of any value.

I venture to recommend this salt water cure for metal poisoning, but I have not tried it.

Market Scenes in Mexico

By WINFIELD SCOTT

With Illustrations by the Author



RETURNING FROM MARKET

ESPITE the fact that the picturesque market scenes appeal most strongly to the photographer who visits this charming and so little known country, they are perhaps the most difficult subjects that can be selected. They are so interesting, however, and withal so typical of Mexican life that they cannot be ignored, and for that reason I am prompted to offer a few suggestions as the results of my own wide experience in dealing with such subjects.

In nearly all outdoor work, especially in the streets of the towns and cities, one invariably has a goodly following of the "small boy" element.

They are a modest lot, however, and

rarely, if ever, show a disposition to annoy. They seem to be attracted through genuine curiosity, many following the camera about for hours.



THE FRUIT MARKET



A HARDWARE MERCHANT



GOING TO MARKET



A MARKET SCENE



BUYING POTATOES



BOUND FOR MARKET

Some among them will quietly edge up into the field that you are to photograph and sometimes prove a help by so doing. More often, however, their eagerness to be in the picture is the greater source of annoyance. As a rule, it is best to allow them the satisfaction of posing just outside of the view. It is even advisable to make more or less show of arranging them in order to quiet any fears they may have in the matter. Using, as I do, a 5x8 camera, this group of eager youngsters at each end of the plate serves as a boundary to the view, and they are easily trimmed off the finished print. Fairly long exposures must be given. What one finds most desirable about the markets is nearly always in the most impossible light, and to get one, a tripod must be used. By the time the camera is set up and a focus secured, the small boy has lined up also, and to photograph the scene is then out of the question. This is where the average photographer, thoroughly disgusted, picks up his camera and walks away, looking for something easier. That is what I used to do quite often years ago. Now I do quite the contrary, provided the view I want seems to offer something worth the while as a picture. I can see on the ground glass what is going on, and, instructing my assistant to take firm hold of the camera, I come out from under the focusing cloth with as pleased an expression as I can command and commence a general thinning out; requesting those not wanted in the view to stand "right over there." Some of the brighter ones will understand and leave, while most of them bunch up on the sides out of range and give me a chance, at the

same time helping to keep back the oncoming crowd: for, remember, we are working with an ever-changing scene where the movement of people can, without exaggerating, be compared to the activity of a well-populated ant hill.

I have forgotten to mention, and this little article is not complete without my doing so, the mother with babe in arms who so often steps directly in front of the camera at the last moment. To her there is nothing in all this wide world so important as a picture of that particular baby. If you are a novice at the work, this is the last straw; by that time you have reached the stage called speechless. You can only take her by the arm and lead her gently to one side or to a more suitable position.

Gone about rightly, the difficulties may be made a pleasure. The crowding in of undesired persons is done so good-naturedly that I have no difficulty in taking full command and ordering them about, particularly as my own good temper is carefully retained during the process. It is trying, of course, but the prospects of "a good thing caught" promises success, and success gives pleasure through difficulties.

Occasionally it will be found that the light and small depth of focus required will permit of a large stop and a quick exposure. These opportunities should be taken advantage of by stealing a few snaps without the knowledge of the subjects, and, if possible,

while they are concerned with their own affairs or watching your efforts at arranging one of the side groups. This can be done by an assistant, who will quietly press the bulb at a signal from you, everything being in readiness.

I find that making the exposure with the cap helps very materially, as time must be given. There are always from one to a dozen people whom you are to include and they are watching closely your every movement. By a remark or two one can center their attention, and with a flourish more or less sweeping, according to the circumstances, the cap is taken off. Instinctively they know that the exposure is being made and hardly a wink will be seen. I would suggest to those who always use a bulb in making a group, that the cap method be given a trial. I am convinced that their so doing will convince them that the use of the cap makes for larger success in this kind of work.



A FRUIT SELLER

Artificial Negatives

Johann Mai, in "Liesegang's Photographischer Almanach," gives full particulars for the production of negatives by hand. The usual use of such an artificial negative is to reproduce a line subject in pure black and white, which is not easy by photography. They can also be used in lantern slide work, and lastly, it occurs to me that they might be used in a supplemental manner in conjunction with an ordinary negative to obtain the effects that Frank Eugene and other workers attain by direct etching on the negative. The *modus operandi*, as abstracted in the "British Journal of Photography," is as follows:

"From the subject, the line drawing, or photographic print, a copy as accurate as possible should be made on transparent tracing paper with black ink and a pen, then this can be traced, either reversed or not, on the ground plate, by placing under the transparent print a sheet of tissue paper rubbed with powdered English red, and then tracing over all the lines with a sharp lead pencil, so that they are transferred to the coated plate.

In order that the transparent print may not shift, it should be fastened at its top edge with wax, and then one can lift it up to see the progress of the work as often as one likes.

As regards the actual etching, no advice can be given, for here the skill in drawing comes into play. A good English sewing needle of the largest size (mounted in a round handle like a lead pencil) can be used as a graver. With this point all fine lines can be worked in, and the needle should be held like a pen. Broader surfaces can be scraped out with a sharp-pointed pocket knife, with which it is possible to obtain both broad and fine lines according to the position of the hand. The whole work goes on easily, as the etching ground presents no resistance, and the more skilled one is in drawing, the quicker the work is done. Excellent line blocks can be made from such negatives. The graver must always be kept very sharp, and a whetstone and some machine oil should be kept close at hand.

The most important point in this process is the etching ground, which must have the necessary resistance and elasticity with absolute opacity. It must not break away from the glass, and lines at the most acute angles for shading must be possible. Many formulae have been given for such a preparation. I use one of the following composition:

Canada balsam	1 ounce
Rectified turpentine	2 ounces
Liquid seccative	$\frac{1}{4}$ to $\frac{1}{2}$ ounce

These are thoroughly mixed together and as much lampblack or pine soot added as will give it the consistency of an ointment. The glass should be evenly coated with this by means of a badger-hair softener. The plate should be held up against the window so as to see that there are no pin-holes in the coating, as the plate must be absolutely opaque. Care should also be taken to see that the film is as even as possible. If the ground should become thick during the coating, a little turpentine should be added. The plates will take several hours to dry, and when they are no longer sticky they



1
PORTRAIT OF MR. K.
By GEORGE T. POWER

can be used. First of all, the plate should be dusted with powdered graphite and a soft pad. After well dusting it is then ready for use.

In order to see every line as it is made, it is advisable to use a retouching desk and reflect the light through the plate with a sheet of white paper. The lines will then appear white on the black ground, and the effect of each can be at once seen. If errors occur they may be blocked out with a fine brush charged with the ground, but the plate must be quite dry when this is done. A ruler may be used for straight lines or outlines; even circles or curves may be put in by means of sectors, etc., but care should be taken when using these not to damage the ground. When the etching is finished it should be examined against a window, and if everything is satisfactory it is ready for use. The etched lines should be clear and sharp in order to give good impressions, and it is therefore advisable during the etching to use a broad soft brush to remove the little bits that are scraped up, so that they do not adhere to the lines.

Another etching ground consists of:

- Syrian asphalt (powdered) 50 parts
- Golden-yellow Venice turpentine 10 to 12 parts
- Linseed varnish or oil.....15 parts
- Oil of turpentine 15 parts

The asphalt, Venice turpentine and turpentine should be placed in an enameled saucepan on a moderate fire and boiled and stirred till everything is completely dissolved; then it should be removed and the linseed oil added in a thin stream and continual stirring. To the mass should be added enough lampblack till it is of the consistency of a salve and a deep black. The well-cleaned glass plate should be evenly coated with this until opaque, allowed to dry and rubbed over with a little lampblack mixed with a little gum water. At first the resinous ground will repel this, but by repeated coating it will adhere.

Care should be taken that the ground is not too thick, otherwise the lines will not be clear, but one or two trials will soon tell one the correct thickness. The gum coating can also be used for the Canada balsam ground if the latter is not sufficiently opaque. The resin ground should be kept in a well-corked wide-mouthed bottle.

Old negatives cleaned from their films can be used, and it is advisable to clean them with diluted hydrochloric acid and then with acetic acid and chalk, and finally, well washed and dried.

Paper Negatives

By H. D'ARCY POWER, M. D.

I have on two or three previous occasions drawn attention to the advantages of paper negatives and have reported authorities to the same effect. The German school of pictorialists, working chiefly in gum and producing pictures of very large size, have long been accustomed to the making of their enlarged negatives on paper, and various brands of negative paper are

easily obtained. Let us look once more into the advantages that paper offers. It gives, first of all, the cheapest negative, and while this is a matter of small consideration with users of pocket cameras, it becomes quite important when such sizes as 14x11 or larger are frequently made. It is the lightest negative support to carry in the field and the easiest to store at home. Before the recent fire relieved me of the responsibility, I had some hundreds of 14x11 plates to take care of, and I have a vivid remembrance of what it meant to hunt out any certain negative from amongst that pile. The same number of paper negatives could have been safely stored between the covers of a bill file. A paper negative is absolutely proof against halation. In the matter of modifying, they are ideal; permitting, as they do so easily, of



removals, additions, corrections, and changes in tonality such as are quite out of the question with either glass or celluloid. To the pictorialist this latter consideration is all important.

Let us consider it in detail for a moment. Suppose we have a paper negative to correct, let us say of a woodland scene. We have made a print from it and have found that some of the planes are wrong in tonality, the shadows under a receding line of shrubs are too dark; so also are the shadow sides of the trees. Some of the foreground is too light and lacking in detail; the light falls on the foliage in that distressingly spotty way that spoils so many forest scenes; many of the branches run into unpleasant lines, ones that would be left out as a matter of course in an artist's sketch. This is a

formidable but common list of troubles and easily remedied on a paper negative. We make up a weak solution of one of the Diamond dyes of a yellow or brown color, and placing the paper negative on the retouching desk or on a piece of glass supported at an angle over a sheet of white paper, with a sable-hair brush we carefully apply a thin wash of color over the too dense shadow. We must be careful not to overdo it, for it is easy to strengthen, but not to remove the dye. We do the same thing over the shadows on the tree trunks, being very careful to keep within their borders. The offending spots of high light represented on the negative by black patches, we boldly remove or tone down with the retouching knife and do likewise with offending branches. High lights on telephone poles or other incongruous objects should also be removed. We still have the too white and bare foreground to remedy. If a large area needs darkening we dissolve a very little oil in ether, chloroform or turpentine and wash over the chosen area. This should be done by starting well to the top with an almost dry brush and after a commencement has been made washing downward to the bottom of the print boldly. When the solvent has evaporated, a little oil will be left in the paper, which will render it slightly transparent at this point and so yield a corresponding shade in the print. Distinctly dark details are easily put in by using a little pure castor oil applied by means of a pointed brush. In this way small shadows can be accentuated and shadow detail built up in the foreground. Finally, high lights can be put in anywhere with the greatest ease by means of pencil or crayon. All this work, except the removal of silver with the knife, should be done on the back of the negative. In these directions it is assumed that the paper negative will be used without any oiling or other attempt being made to render it transparent, such transparency being quite unnecessary, difficult to secure and still more difficult to retain, notwithstanding the many vaunted receipts for its easy production. Paper negatives are mostly used for making prints in carbon or gum, but they yield equally good results on rough gaslight or bromide paper.

The illustration with this article was made on P. M. C. rough bromide and shows no trace of the grain. Good negative paper is put on the market by the Rotograph Company, but it is too thin to please me. The Germans have recognized the need of reasonable body in a negative paper and according to Gaedicke's "Wochenblatt" for February, a new paper known as the "Schwertemarke" fulfills this requirement. Personally, I use the Eastman bromide known as "Platinoid-Soft," using it in an ordinary plate holder, retained by two pins driven in obliquely at top and bottom. A holder for flat films would be better, and best of all would be the film pack if the manufacturers would put up paper in that form for us. This paper needs about ten times the exposure of a Seed's 26 plate and development should be carried far in excess of what is suitable for a bromide print. If on fixing, the density be found insufficient, it can be intensified by the bichromate and redevelopment method, or by mercurial intensification. Finally, the printing quality is improved, and probably the permanence of the negative, by sulphurizing by means of the Eastman Sepia toner. I have found no difficulty in getting full gradation and excellent contrasts from negatives so produced.

Photography from the Scientific and the Business Standpoint

By "OLD FORTY"

Strange as it may seem to the many who read this, the fact is still an undeniable one, that few photographers are today equipped for their profession from either the scientific or business standpoint. Most of them are graduated into full-fledged professionals by working at some branch of the craft during a vacation, during busy holidays or after a short term spent too solely "for the money in it." All too rarely a love of the work is really another consideration. It would surprise the craft generally beyond expression to know how often the "old-timer" is called upon by the younger members of the craft to tell how this or that is done. How, for example, to make a copy of something only a little out of the usual order. For illustration: A childless mother took a little stamp photograph of her last baby, just laid away beneath the daisies, to a young photographer, who assured her: "Oh, yes; I can copy it for you. It will cost you \$5." Some three days later the writer was present while the young photographer was handing the little stamp picture back to the stricken mother, saying: "Cannot copy it; it's too small." "Butting in" at a serious risk of giving offense I asked if I might see it a moment. I told the photographer that while it was difficult, if the lady could come around again in a couple of days we would show a proof. She was delighted, and asked: "Will it cost more?" Advised that it would cost a total of \$10, she replied: "Here is the money, sir." Her departure was remarkable only as it caused the photographer to put down the corners of his mouth, saying: "Whatever will I do? I can't copy that at all." I looked around his place, and, finding a small lens, asked him to let me have a cigar box, and, coupling on the lens, put it on the front of his 6½x8½ camera and soon had a nice negative. This not only gave to the poor mother some very satisfactory prints, but she in turn brought the photographer about twenty-five dollars worth of new business inside of ten days.

This you will recognize as being both scientific and business-like. How many of our craft are today trying to make all the negatives the sitter wants, fifteen or twenty positions, ditto proofs, and most of these last from retouch negatives? Can the business end under such conditions be made to show a satisfactory cash balance? I fear not. The question of how many negatives and proofs ought to be given each sitter has caused more trouble in recent years than anything else on the list. Most of those composing our craft find that three or four, at the most, are sufficient. Some allow two, and again others give six. From long experience the writer knows that the photographer can make terms, if he but tries, and that he can get almost anything he wishes from his customers. Courtesy and firmness will secure almost anything you wish and your customers are sure to respect you all the more for using both in your dealings.

Again, when you come to finish the orders you have a chance to show a clean business hand. Make it your rule to finish, say, not more than one, or,

at most, two, poses for a dozen. If more are wanted, get extra pay, say, one dollar; some charge only half a dollar. You will find a great difference in the number of negatives you have to retouch, as well as in the cash balance. This item of "various positions" is a source of great trouble. When many positions are made some are much better than others, but the less desirable are nearly always the ones wanted printed. Please understand, patient readers, the writer does not, by any means, desire to underestimate the value of courtesy, and all reasonable efforts to make it pleasant for the patron. The fact is, however, that it takes considerable foresight and skill to carry on the many details of our craft without undue friction. The writer contends that no smooth run of business can occur unless close attention is given to each of the scientific, artistic and business sides. True, many may call the writer a crank, and yet a letter lies before me saying: "I cannot tell you the number; am not posted as you are. All I care for is to make money out of the business. Old-time boys like you are much better posted than we youngsters." Is not the condition thus confessed really the cause of more failures than anything else? Do not the patrons of such a photographer soon realize the truth and take their orders elsewhere? You all know how rapidly the public spreads broadcast its opinion, good or bad, as to any business man. Make your work your life study, and do not neglect any of the three factors I have mentioned. Perfect yourself in the technical of scientific part of photography; make your work as artistic as you can and give close attention to the business side. Doing this, our craft will afford you a source of interesting study, it will give you much gratification in return for your achievements as an artist and it will prove remunerative as your business ability is made more manifest.



CONVENTION

Picture by J. C. S. AUNE, Portland, Ore.

The New Ozobrome Method of Carbon Printing

A Lecture Delivered Before the California Camera Club, April 4th, 1907,
by Dr. H. D'Arcy Power

Reported by W. Rob Whyte

Ladies and Gentlemen:—

As I had promised to give you a demonstration and explanation of the Ozobrome process of carbon printing. I will now endeavor to make plain to you the methods by which an almost unlimited number of carbon prints can be made, without the use of daylight, from any one bromide print. The only limitation to the number of carbon prints which can be obtained from say a bromide enlargement is the strength of the stock upon which the bromide enlargement has been made.

In order that you may the better understand the nature of the means by which a carbon print is obtained by the Ozobrome process, I will for a moment draw your attention to the ordinary method of carbon printing with which a great many of you are familiar. In the carbon process, as you know, the tissue is sensitized in a solution of bichromate of potash, which, when dried and brought under the influence of light through a negative, causes the gelatine of the tissue to become insoluble in proportion to the action of the light. Now, it is obvious that it is not the bichromate of potash itself which causes the insolubility, but that the action of light upon the bichromate of potash in the gelatine changes it into a chromic salt which has this property of making the gelatine insoluble; consequently, as the chromic salt is evolved in proportion as the light is passed through the various portions of the negative, the process of insolubilizing the carbon tissue is in exact proportion to the transmission of such light through the negative.

By the Ozobrome process, this change, brought about in the bichromate of potash, is not effected by light, but by chemical action. The Ozobrome solution which you have seen me pour, in a diluted form, into this dish on my right, consists principally of ferricyanide of potassium and bichromate of potash. There are several other chemicals present which assist the process, but for the purpose of this demonstration it is unnecessary to name them. Now, the action of the ferricyanide of potassium upon a bromide print is, as you know, to bleach out the metallic silver of the print, so that there remains upon the paper but a faint image in cyanide of silver. The effect of this cyanide of silver upon bichromate of potash is, to all intents and purposes, identical with that of light, changing the bichromate of potash into that chromic salt which, as I before explained in regard to the ordinary carbon process, has the effect of bringing about an insolubility of the carbon tissue. Again, it is obvious that the presence in the bromide print, after bleaching, of the white cyanide of silver is in exact proportion to the former presence of the metallic silver in the original picture; consequently, its action upon the bichromate of potash is in the same proportion, corresponding to the

action of light through the varying grades of a negative, so that upon development we find the insolubility in exact proportion to the original presence of metallic silver in the bromide print, and therefore an exact reproduction.

I will now proceed to demonstrate by means of this bromide print, from which, as you see, I have already made several copies in carbon. I place the bromide print in this dish of cold water so that it may presently come into absolute contact with the carbon tissue; and, to make this contact perfect, it is essential that no air bells remain upon the surface of the print. This piece of carbon tissue on its paper support I also treat in the same way by placing it for a few moments in the cold water, as by this means it is easier to insure the absence of air bells when it is placed in the Ozobrome fluid. I now lift the carbon plaster from the cold water, allow it to drain for a moment so that no free water is lying upon its surface, and put it under the Ozobrome fluid in such a way as to avoid bubbles. Sliding the plaster in edgewise till it is all immersed I think you will find the most satisfactory method, but be careful to inspect it when it is under the Ozobrome fluid and break any bubbles which you may find have formed on its surface. By the time the carbon tissue is straightened out perfectly limp in the Ozobrome fluid, it will have absorbed sufficient of the fluid to enable it to do its work. While the carbon is becoming limp, we will remove the bromide print from the water and, letting it drain a moment, place it face upwards upon this sheet of blotting paper. I now remove the carbon plaster from the Ozobrome bath, let it drain for a moment, and, for the purpose of preventing the presence of any unabsorbed chemical upon its surface, which would make the resulting print blotchy and unequal, I pass the plaster several times, face downwards, across the surface of the water in this dish, which effectually removes the chemical fluid which has not been absorbed by the gelatine. The next operation is one which requires considerable care and some dexterity, that is, to bring the carbon tissue, face downwards, into absolute contact with the bromide print which is lying face upwards upon this blotter, without any movement whatsoever of the one surface upon the other after they have come in contact. Any movement, on account of the rapidity of the chemical action which takes place immediately upon contact, would cause a blurring wherever creeping or sliding may have taken place. Then we place a blotter on the back of the carbon tissue and, protecting it with this cardboard, lightly press equally all over the card with the back of a flat squeegee to remove the superfluous moisture; and then, in order to bring the carbon tissue upon the bromide print into the most perfect contact, we remove the card and the top blotter, replace them with this thin sheet of celluloid and, with the rubber side of the squeegee, press them into contact with as much energy as we are capable of putting into the action, of course still being careful that no sliding of the tissue over the bromide print takes place. We now put the carbon tissue and the bromide print, in their state of absolute contact, under light but equal pressure, leaving them thus for say twenty or thirty minutes while we proceed in like manner with another print. I will do this so that I may be able to show you both methods of producing a carbon print by this process, namely by single transfer and non-transfer or leaving the carbon tissue in permanent contact with the original bromide.

While these two are remaining in contact for a sufficient length of time for the requisite chemical action to take place, I will say a few words in regard to the opportunities provided by this process for the manipulation of the final results. As in the ordinary carbon process, there is considerable latitude permissible in the degree of heat of the hot water used in development, which reminds me that I shall require some hot water in a very few minutes, which one of you gentlemen will kindly procure for me. By the use of very hot water a comparatively contrasty picture may be obtained from a somewhat flat original; then again, the relation between the high lights and the shadows may be considerably modified by laving hot water upon certain portions of the picture and cold upon others, the hot water, of course, increasing the high lights and the cold water strengthening the shadows, or vice versa, so that to the artistic photographer there is, in the Ozobrome process, opened up a field for individual expression that is only limited by the possibilities in the original bromide picture. To those who are skilful with the brush there is unlimited opportunity for modification; and even by the use of the finger, exercised of course with very great care, you may be surprised at the amount of effective control that may be had in the process of development.

We will now proceed to develop our first carbon print. I will place it, still in contact with the original bromide, in this dish of cold water and, when it appears to be thoroughly saturated, I carefully lift one corner to see that complete separation of the carbon and the bromide will take place. As we intend to make a single transfer of this carbon, we will now place a piece of transfer paper in the cold water and by the time we have separated our carbon from the original bromide this transfer paper will, in all probability, be ready for use. We now make this separation by one steady pull, still in the water, and place the bromide print in its, as you see, bleached condition, in this dish of cold water to await an opportunity for its re-development. We now bring the transfer paper and the undeveloped carbon print into contact in precisely the same manner as we did the original bromide print and the carbon tissue and leave them under pressure for a similar length of time.

In the meantime we will develop the other carbon print by what is known as the non-transfer method, leaving it upon the face of the original bromide print, which may be afterwards either intensified to strengthen the effect or entirely bleached out with "Farmer's" reducer, leaving nothing on the surface of the paper but the carbon print. As in the ordinary carbon process, this is done by placing the two, as now in contact, in the hot water, the carbon being face downwards, and waiting till the pigment of the tissue begins to exude from beneath the paper backing. By this time, by a steady pull from one corner, we may completely separate its original backing from the carbon tissue, leaving the carbon, or pigment coating, upon the face of the bromide print. We now proceed to develop this carbon print by laving it with hot water, as in the usual method of developing a carbon, as I said before. The process of development of the carbon tissue having been previously stopped by a bath of perfectly cold water, the underlying bromide picture may be re-developed or bleached out as previously mentioned.

We will now take up our first print which we have in contact with the transfer paper and proceed to develop it with the hot water. First, we place it in the hot water with the original back of the carbon plaster uppermost; and, when the pigment begins to exude, a steady pull will separate the original backing from the carbon tissue, leaving the latter in contact with the transfer paper. Placing this latter now upon a sheet of glass, to enable us the more readily to manipulate it, we will lave it with hot water till the development is sufficiently advanced to enable us to see what we may do in the matter of modification. Should we desire to deepen this shadow, we will pour cold water upon it to retard or stop development; should we desire to heighten this light, we will see that the hot water passes over it, letting the impact of the hot water take place upon that portion of the picture which we know is sufficiently insoluble to resist its action. Will you kindly pass around the results of our evening's work, taking care not to touch any portion of the face? And I will ask you, as I wish to catch my train to get home tonight, to hang the prints up to dry where they will be free from dust.

Thanking you for the attention which you have given to my explanations and, trusting that many of you will, in the near future, become expert printers by the new Ozobrome process, I wish you a very good evening.

Reduction of Blue Prints

By SAMUEL PURNELL

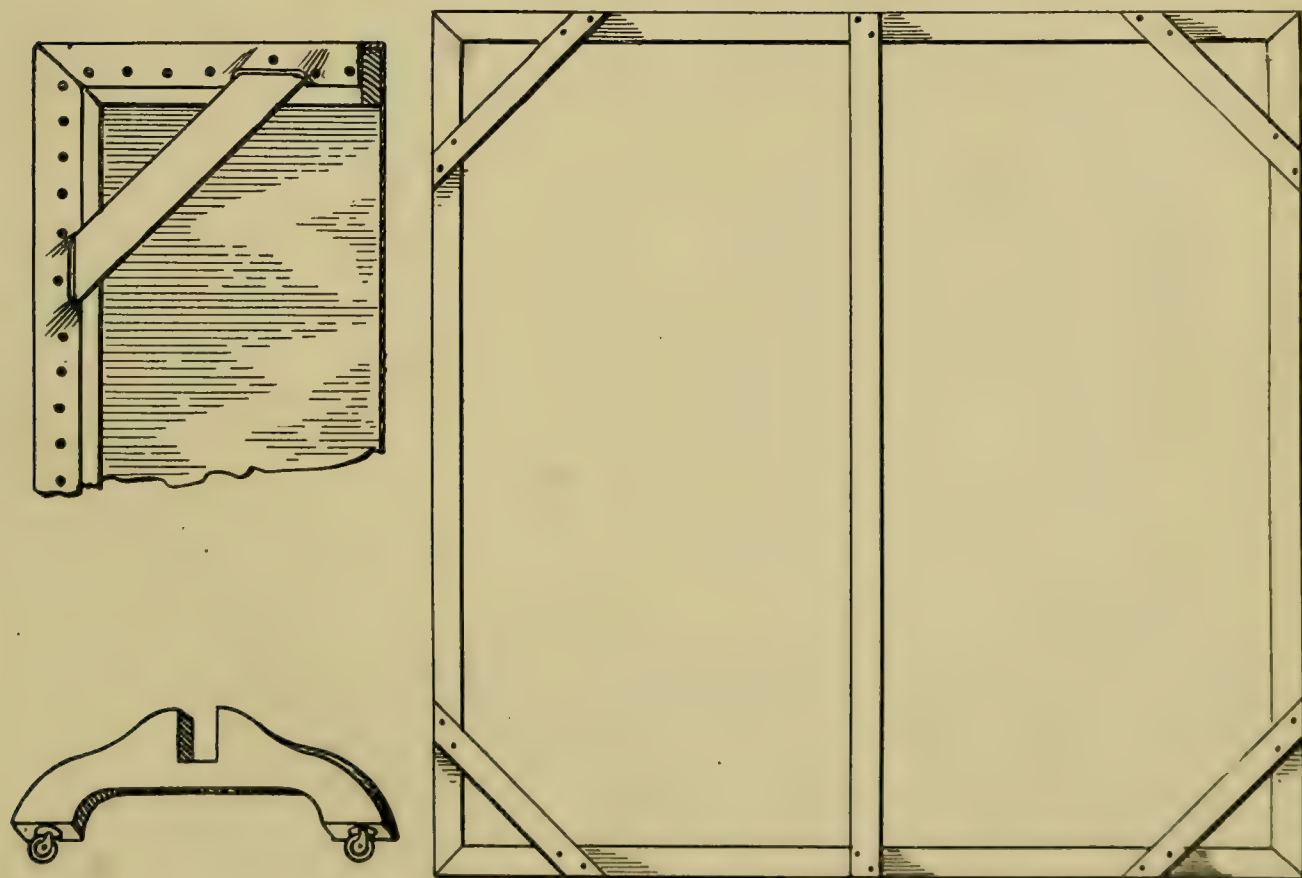
To secure the best results from a blue-print, as manipulated in the usual way, is more difficult than is generally supposed. The chief difficulty is to print it to just the proper depth. If under-printed it is of no value; if over-printed it has heretofore been considered also valueless. I have discovered that an over-printed blue-print may be cheaply, quickly, evenly and successfully reduced to just the density desired, and without any damage to the print. The method employed is so practical that it is advisable to intentionally over-print all blue-prints, so as to be sure they are printed deeply enough, and afterward reduce them by this process.

When the finished and dried blue-print is seen to be too dense, soak it in water for a few minutes. In a tray put a pint of water and dissolve in it about a heaping teaspoonful of bicarbonate of soda; the exact quantity is not material. Immerse the blue-print in this and rock the tray. Do this by daylight. Reduction proceeds at once and rapidly, the speed depending on the alkalinity of the bath. Just before the print is reduced to your liking, transfer it to another tray in which fresh water is running. Wash it for about five minutes and then lay the print out to dry.

Home-Made Backgrounds

By R. B. TURPEN

The backgrounds most generally recommended for amateurs' use by writers in the photographic magazines, dark colored blankets, wall paper, and the like, are not as a rule very satisfactory. The former is quite difficult to hang so that it does not show wrinkles, and the papered wall is usually located where the light is not suitable; both disadvantages tending to discourage the amateur attempting the making of satisfactory and successful portraits with their aid. Such was the situation in my own case until I coaxed from a friendly professional a description of his method of making blue-white and black backgrounds such as he used for platinum effects. I think I was fortunate in securing so much satisfactory information, for as



a rule the professional is adverse to enlightening us amateurs in photographic matters, making it his practice to conscientiously advise all who wish to be successful with their cameras and make good pictures to follow and read closely the photographic magazines. But while I am writing this I sincerely hope that it may be of benefit to as many professional and amateur workers, and although it is far from my belief that I am writing anything which will be new to those who have made photography their life work, during my short possession of the information, I have come in contact with several professionals who were ignorant of a practical method of making for themselves such backgrounds as I shall endeavor to here describe how to

produce. The cost should not involve the expenditure of more than a dollar, and let me also say that should you follow my instructions and employ the resultant backgrounds, I am positive that portraiture will thereafter occupy more of your time devoted to photography than any other branch of this fascinating pastime.

First, secure three pieces of hard pine lumber about one by one and one-half inches and twelve feet long. With two of these make a frame six feet square and brace at each corner with a piece one and one-half feet long cut from the remaining strip. The last six feet of lumber should be nailed across the frame to brace it still further, and also serve as a handle to carry it about. Secure also four yards of unbleached muslin, one yard wide, cutting it in two in the middle to make two pieces one yard long. These are to be sewed together at one side so as to form a cover for the frame. Lay this muslin cover on the floor, smooth side down, and the frame upon it. The muslin is then stretched tightly and tacked to the back of the frame. Do not stretch it too tightly at the corners first, or you will be unable to bring the sides over the back of the frame. Tack it loosely at the corners, and then starting at the center of each side, work gradually towards the corners, doing a little at each side at a time.

The next thing is to paint the background. The requisite material can be secured at any paint store and consists of ten cents' worth of whiting, half that amount of powdered blue and a like amount of ground glue. An old tomato can will answer admirably as the receptacle in which to mix and boil the paint. To about one-third pound of the ground glue add six or eight ounces of water and bring to a boil. Next add your whiting and enough water to make the mixture about the consistency of common paint, making at least a quart for the thirty-six square feet of surface which the frame carries. Stir it constantly until again brought to a boil and then add the blue, mixing it vigorously and thoroughly. Here one word of caution is required, as the background when dry must have just a tinge of blue, just enough to show a contrast between it and white draperies. A very good way to determine when the right color is secured is to paint a stick or small piece of wood and dry it by heat, this requiring only a few minutes' time. It should show just a tinge of color, a light sky blue. While boiling, the paint will appear a shade or two darker than it will when applied to a surface and allowed to dry.

All is now ready for sizing and painting, which must be done thoroughly and quickly with a wide brush, keeping the paint hot during the operation. This tends to shrink the muslin, causing it to stretch tightly over the frame and show no wrinkles when completed. Should the background sag or become loose at any time it is a very good plan to restretch it, tacking each side anew and finally repainting the back with a clean brush and hot water, causing it to again shrink tightly and with a smooth surface.

Should you wish a black background instead of a white one, all that is necessary is to substitute about four ounces of lamp black for the whiting and blue as advised above. That amount with the same quantity of crushed glue and water as advised for the white paint, will make the same quantity

and cover the same amount of surface. When one has acquired a little skill in making these plain grounds it would not be a difficult matter to produce clouded effects and the like by combining the blue-white and the black paint in varying proportions according to the depth of color required. A painter friend has suggested that possibly the amateur could secure some effective results along this line by applying the color with a pad consisting of a piece of cloth stretched over a ball of cotton or some soft rags. The inexperienced painter could possibly secure more even shading in some such way, but I have not given the method a trial.

All that is now required is some sort of a support, and even that is not absolutely necessary. In my own practice I simply lean the ground against a stand, table or some other piece of furniture. If it is desired that it stand alone it is a simple matter to nail two cross-pieces to the bottom so as to serve as feet. If something more elaborate seems necessary, one can have a carpenter saw out two pieces like those shown in the diagram, and by using four castors have a ground that can be easily moved about as the requirements seem to demand. The size of the ground can of course be altered to suit if desired, and by allowing the cloth to extend a few feet past the end of the frame and painting it at the same time as the ground is painted, a serviceable floor cloth can be secured. It, this extension or floor cloth, will have to be stretched on a frame while being painted and dried, but afterwards it can be removed from the temporary frame and tacked to a light roller so as to be rolled up and fastened to the bottom of the ground when not wanted. A small strip of leather at each end of the bottom of the ground will loop up over the roll and hold it in place and out of the way. This is particularly easy to arrange when the ground is mounted on the two supports as suggested.



WATER LILIES

BY MRS. J. C. SHERIDAN

Advice For the Beginner

By CHURCHILL HARVEY-ELDER.

Having been approached repeatedly by friends who are desirous of taking up photography for information with regard to the apparatus best suited to their needs, it has occurred to me that it might be not inopportune to give my ideas on the subject to the readers of "Camera Craft." So much that is written nowadays is either pure theory or else is inspired by the literature of some particular manufacturer that it is hard for the novice to reach any satisfactory conclusion before purchasing a camera.

My experience in the field of amateur photography dates back some fifteen years, when as a small boy I received as a present one of those same instruments which initiated so many into the joys of photographic art, the Harvard camera, sold by the Youth's Companion. Since then I have owned a dozen instruments of one kind or another, and at the present time have a goodly assortment, most of which repose for twelve months in the year on a closet shelf.

The introduction of that wonderful instrument, the Kodak, has so simplified the art of photography that very few people are without some idea of picture-making, but unfortunately the very facility with which photographs—I will not say pictures—can be made, has done much to destroy the actual knowledge concerning the art. "You push the button and we do the rest" may appeal to the superficial dawdler, but the more serious worker does not care to have anybody else do "the rest" for him, and prefers to go through the fascinating process of producing a picture in its different stages.

For this very reason I feel that we have been Kodaked to death, and I have always done all in my power to induce my friends to try and understand what they are doing and thus produce a few good pictures rather than to cover cartridge after cartridge with exposures which mean nothing and fill albums with chalk and soot prints utterly without merit.

Not for a minute would I insinuate that artistic photographs cannot be made with the Kodak, for such is not the case. I own a model 3A Kodak, and fully 75 per cent of the pictures which I make are turned out through its agency. If a Kodak, or other strictly film camera, is purchased by the beginner, I would advise him to also purchase the plate attachment—which can be had at a small additional figure—and really learn what he is doing. Instead of making it easier to compose a proper picture, Kodak simplicity in reality makes it far harder, and a man can work conscientiously for months with the finder and yet remain groping in the dark.

If money is not any especial object to the beginner, I would advocate the purchase of a plate camera of standard manufacture, equipped with reversible and swing back, rising and falling front and a good focal capacity. Such a machine can be had in the 4x5 size for thirty-five dollars, and will be a valuable acquisition to any outfit. I do not consider any equipment complete without a Kodak, but the amateur has time and he should educate himself

in the rudiments of his art with a less facile apparatus. Nothing destroys the ideas of composition more quickly than the indiscriminate making of exposures.

When once he has secured such an instrument as I name, let our friend, supposing of course that he is inclined to take up photography seriously, invest in some of the older works on the art—the books by Captain Abney I value highly. No man has written more fully on the subject, and though many of his earlier works are out of date, they go into detail in a manner calculated to initiate the student into the full mysteries of the magic art.

Armed with his apparatus and a fair working knowledge of the whys and wherefores of what he is about to do, the neophyte can begin his actual operations. Rather than begin using up plate after plate, let him start out without his holders and, for the first day or two, work with his camera unloaded to become somewhat familiar with the appearance of views upon the ground glass. Then, when he feels that he knows what he wants, let him begin to make his exposures.

The second stage of photography where the very facility with which the work can be done is the source of more harm than good is in the printing. With Velox and some of the other gas-light papers it is such a simple matter to make some sort of a print from almost every negative that one is apt to grow careless about his exposures. My advice to the novice is to start in with Solio or some other gelatine paper and then go directly to platinum. Let him make a few good prints and learn how to suit his negatives to his paper. Then he can take up the more easily-worked gas-light papers if he so desires.

While the percentage of people who dabble in photography today is many hundred times what it was fifteen years ago, the proportion of the amateur photographers who understand the rudiments of the art which they practice is far smaller. I base this statement on a careful observation of the conditions existing, and I believe that we have not far to search in order to locate the cause. "Snap, snap, snap," is the general rule of the present-day amateur, and his finished work shows the result not only of snap exposures, but of snap judgment as well.

Photography is too frequently looked upon as a mechanical process intended to furnish an easy way of registering past events; the artistic possibilities of the process are entirely overlooked.

Photographic art is, at the present time, limited by certain bounds beyond which we cannot travel. Our work is, as a general rule, limited to monochrome effects and the range of tones of even the most comprehensive of printing papers is narrow. This fact, however, does not furnish an excuse for perpetrating upon our friends a quantity of chalk and soot prints wherein glaring highlights and coal-black shadows are placed side by side in a manner calculated to turn the hair of the artist white. With the carbon and gum-bichromate process we are able to procure pictures of great artistic merit, and with the aid of a little common sense, careful application to work and a modicum of artistic temperament any one can produce a negative which will allow of satisfactory prints being made.

In closing there is just one word more which I would say with regard to the apparatus to be selected by a novice. Do not imagine that any particular lens or the like will insure success. A good lens is desirable, and under certain conditions an expensive one will be a decided advantage on account of its speed. Nevertheless, some of the most artistic work which I have ever seen was done through the agency of an old-fashioned single "landscape" lens, and for ordinary purposes I consider a good rectilinear as satisfactory as the most expensive anastigmat ever placed upon the market. For high-speed work the anastigmat must be used; as far as definition is concerned a good R. R. will give all that is desirable in artistic work.

Gaslight Photography

With Two Pictures, by EMILY A. CORNING



PLANT AND BLOSSOM OF A NIGHT
BLOOMING CEREUS.

The night-blooming cereus pictured herewith has, during the hours of daylight, the appearance of being but an ordinary cactus. The flowers, however, which open after sunset and are gone before sunrise, have a beauty that is hard to describe. The blossoms measure about eight inches in diameter, are an exquisite pure white and resemble somewhat a water-lily. The first of our reproductions shows the entire plant with two blossoms. The picture was made with a wide open lens, an exposure of four and one-half minutes being given on a Standard plate, the only illumination used being gaslight such as is available in almost every house, the plant being brought up fairly close but yet not so close that excessive contrast would result. The other picture showing only the flower was made in the same way, except that a lighted candle was brought

up as close as possible to give detail in the petals and in the heart of the flower. A dark piece of cloth suspended just back of the blossom was used as a background. As the blossom was pure white and no detail required in the ground, the exposure was cut down to two and one-half minutes. These

pictures suggest what can be done in the way of photography by gaslight, and it would seem that a few experiments with still life studies might be made most interesting work for the amateur photographer who wishes to try new paths. If it is possible to achieve success with flower subjects, subjects which we are so often advised are inclined to move during exposure, still life subjects should prove quite easy, and as the lighting is well under control and its effects easily studied, good results might be expected.



BLOSSOM OF A NIGHT BLOOMING CEREUS.

An Absent-Minded Photographer

By W. F. GINGRICH

Any one who dabbles in photography is well aware that the chemicals used in that fascinating hobby are many and varied. Some of the names are monstrous and are rarely ever heard by any one except dealers in photographic goods. The experimenter, therefore, with the various interesting processes, gets in the habit of going to the regular dealer for his supplies, forgetting that the corner drug store can furnish many of the things needed in ordinary work.

The other day I was preparing a developing solution, the formula of which called for caustic potash—180 grains. I hurriedly went down the street to one of the largest photographic supply houses in the West. They had the required article, but in pound bottles only. I therefore called at a regular retail dealer's place where almost everything known in the photographic line is kept in stock. They had no caustic potash, however, but one of the clerks was kind enough to tell me where he thought I could get it. I was determined to have the chemical if it could be found in Chicago, so I hastened across town for the place to which I had been directed. This dealer, likewise, had no caustic potash, as it was very rarely called for. I was at a loss to know what to do. I had my chemicals all mixed except the addition of the potash, and I was too inexperienced to care to substitute something in its place. I concluded to try one more shop. My way led by a drug store, and as I passed I vaguely wondered if they might not have the required article. Suddenly it occurred to me that caustic potash was not an uncommon drug, and had other uses besides those connected with photography. I determined to try the drug store. "Have you any caustic potash?" said I hopefully to the clerk. "How much will you have?" said he, reaching for a bottle. Of course, I was glad that my search had come to an end, but I could not help feeling somewhat bored to think that I had passed that same drug store four times before I had the least thought of going there for the necessary article.

Some Fine Panoramic Work

We recently had the pleasure of inspecting some of the finest panoramic photography that has ever come to our notice. It was made with a No. 16 Cirkut Camera and the views embracing the oil regions and the San Joaquin Valley towns and country were especially fine. The negatives were made by J. W. Bledsoe, the enterprising photographer of Dinuba, California, who has recently associated himself with another expert photographer under the firm name of Bledsoe & Berry. The demand for their work is so heavy that they are unable to give the attention they would like to the requests made for their services, but they will shortly be equipped with greatly increased facilities. Some of the panoramas which Mr. Bledsoe showed us embraced nearly an entire circle, and covering as they do the fertile valley scenery against an almost continuous background of mountain ranges, were most effective. Views of the oil regions showing the wonderful development of that territory and views of many of the prosperous towns in that section of the state were all of the highest order. We can confidently recommend these gentlemen to anyone needing the services of expert photographers capable of turning out work of exceptional quality such as panoramas 16x120 or smaller, high class view work, enlarging and the like.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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No. 4

Winter in Seattle

Our reproductions of winter scenes in Seattle in our February issue have called forth inquiries from several former residents of that city concerning the possibility of their giving Eastern readers a wrong impression. The danger is one that we entirely overlooked, our own familiarity with the mild winters in that territory blinding us to the fact that others might be less well informed. We supposed that the pictures showing the result of one of the very rare snow storms in that city would have an added interest as picturing an unusual winter there, much as would have been the case had we reproduced a few of the snow scenes which were taken at about the same time in the hills back of Berkeley, directly across the Bay from San Francisco. We trust that this explanation will meet the eyes of any person unfamiliar with the delightful winter climate of Seattle and the Sound country, who might be inclined to form an unfavorable opinion. Miss Hanscom, as a former resident of San Francisco, and with a keen appreciation of the rarity of an opportunity of securing snow pictures in Seattle, promptly availed herself of the opportunity of picturing that unusual phase of an unusual winter all along the Coast territory. Furthermore, neither Miss Hanscom nor ourselves imagined for a moment that an explanation of the circumstances would be necessary.

F. Harry Hall on the Coast

F. Harry Hall, of the Photographic Department of the Berlin Aniline Works, has been on the Coast during the month, reaching here from Los Angeles and leaving for Portland and the Northwest about a week later. Mr. Hall is exceptionally popular, and deservedly so, with the trade throughout the country, and if possible, even more so with that of this section. The firm which he so ably represents is to be congratulated, and Mr. Hall apparently finds the superiority of his firm's goods an incentive and inspiration for his best efforts in their behalf, if such be needed by one so energetic and thorough in his work. Our office was paid a visit, and the magazine complimented upon its great and growing popularity so evident throughout the territory that had been visited.

Mr. Wolff in the South

William Wolff, the popular representative of Hirsch & Kaiser, recently started on his spring trip through the southern part of the state in order that none of the business in that prosperous section of the country be neglected. His many friends will be expected to ask with the utmost solicitude concerning the health of a young lady who recently took up her abode in the Wolff household, and this large circle will also give pleasure by listening with all patience to Mr. Wolff's accounts of that young lady's many and varied accomplishments.

Photographers' Association of Iowa

As we go to press with this issue the Photographers' Association of Iowa are holding their seventeenth annual convention at Cedar Rapids, occupying the handsome Auditorium building in that city April 9th, 10th, 11th and 12th. G. J. Parrott and George Graham Holloway will talk, the Medlar trophy will be awarded for the best six portraits and membership certificates, suitable for framing, found so satisfactory by the California Association before the fire, will be issued. We hope to find room for a report in our next issue.

Louis Thors Again With Us

Mr. Thors is again in San Francisco; coming here from St. Louis where he operated a studio for several months. He is acting as representative for the Cramer Dry Plate Company, and enjoying the opportunity of meeting his large circle of friends in San Francisco.

Mr. Cameron on the Coast

J. A. Cameron of Taprell, Loomis & Company, has been looking after the interests of his firm on the Coast during the month. Popular as is the Taprell, Loomis & Company line of mounts, folders and the like, the popularity which Mr. Cameron has achieved by his many good qualities of mind and personality are hardly secondary. The trade in this territory are appreciative of both and a hearty welcome awaits another visit.

"Lasky's" New Quarters

Lasky's, formerly of 1122 and 1124 Van Ness Avenue have removed to a new location at 1319 Fillmore Street where they are more accessible to their many customers on account of the cross-town lines. They report business as improving steadily and are well pleased with the outlook for increased interest in their many excellent lines of photographic goods.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Stereoscopic Lantern Slides

Probably many people who have taken interest in stereoscopic photography at one time or another have regretted that there should be no simple means for showing the effect to a large audience.

As a matter of fact, this can be done very easily in either of two ways. A stereoscopic lantern slide is first made by photographing an ordinary stereoscopic pair of pictures. This pair of pictures is then projected upon the screen with an ordinary lantern. The stereoscopic effect is obtained by using either a mirror stereoscope or a prism stereoscope. The former consists of two small pieces of mirror held one in front of each eye. The observer has the screen, not in front of him, but on one side, say about 60 degrees from the direction in which he is facing.

In each mirror the pair of pictures is seen, and by tilting one mirror with respect to the other, so that the two outside images are superposed, the picture suddenly leaps into relief. Of course, if the wrong pair be superposed the familiar inverted relief will appear. It is easy to mount the mirrors in a sort of spectacle frame, one of them being fixed and the other capable of rotation about a vertical axis.

It would not be difficult to explain to an audience of average intelligence the method of using such spectacles; the spectacles could be made at a very small cost, and the beauty of the effect would appeal to many.

Cases frequently arise in university lectures in which a stereoscopic presentation of slides would greatly simplify explanations, *e. g.*, in biology.

The other method is to use a single small achromatic prism, which is held in front of one eye, the refracting angle being vertical and directed towards the other eye. Of course, prisms of different angles are required for different distances, but a single prism can be made to suffice for a large range by twisting it about a vertical axis, without

greatly impairing the "stereoscopia."

At first sight one might think that the effect could only be seen by observers situated in or near a plane bisecting the screen at right angles, but this is not the case. Indeed, anyone who has worked with stereoscopic photographs must have been struck with the ease with which the eyes will adjust themselves to pictures which are not correctly aligned, and experiment also shows that the two pictures need not be of the same size.—G. A. Shakespear, in "Nature."

Color Screens in Photography

The "British Journal of Photography" publishes an abstract of a pamphlet issued by the plate makers, V. Ratten and Wainwright of Croyden, England, on the very important subject of the proper relation of stain, color screen and plate in making photomicrographs. Dr. Kytta has already done much work in this field to some of which I have already drawn your attention. I have no doubt but what microscopists can obtain the pamphlet by writing direct to the firm. The following abstract will give some idea of the practical value of the information:

"There are two main principles to be kept in mind. First: The light should be kept as nearly as possible monochromatic; that is, should consist of homogeneous light of one color only. Second: The light should be in the absorption region of the stain; that is, should be complementary in color to it. When speaking of the light used it must be remembered that this means the light acting on the plate; not the light visible to the eye. With regard to the first of these two principles: Any objective will give better definition when used for monochromatic light than for polychromatic and in the case of objectives with any but the most perfect chromatic correction the improvement is most noticeable. As to the second: If light corresponding to the absorption region of

the stain be used, then the stain will be as dark as possible and the greatest possible contrast in lighting will be obtained."

In order to make this point quite clear the following explanation may be useful: White light may be regarded as being made up of light of various colors and by different devices may be split up into these colors. When this is done there is obtained what is known as the spectrum. Light is found to consist of waves of different lengths corresponding to different colors so that the spectrum corresponds to a scale of different length waves. The length of a light wave is the distance from the crest of one wave to the crest of the next.

Now, if we take a solution of methyl violet and examine the spectrum of a light source through it, we shall find that the whole region between 4,600 and 6,200 is absent, that is to say, methyl violet has an absorption band extending from 4,600 to 6,200. Consequently we shall fulfill both the principles given above if we photograph a methyl violet stained section with monochromatic light of wave-length anywhere between 4,600 and 6,200. But if we dilute our solution of methyl violet we shall find that as the solution grows weaker, the absorption band narrows until with very weak solutions the only remaining trace of a band is from 5,800 to 6,000. So that if we are to fulfill our second condition for sections very weakly stained with methyl violet, our monochromatic illumination must be as near as possible to 5,900.

Light Filters—Their Construction and Uses

The above subject is a constant matter of inquiry and one surrounded by no little difficulty. The following lines by E. Fenwood in the "English Amateur Photographer" apply as well to American plates as those of English manufacture:

As the days are now drawing out and the light of the sun is daily getting stronger, photographers will no doubt soon be overhauling and perhaps renewing their outfits, and as color photography is practically still a thing of the future, for the benefit of those who have only an imperfect knowledge of chromatic photography and its superiority over non-chromatic, I write the result of my experience both in constructing and using filters.

Owing to their good keeping qualities and

their easy manipulation, I have used more ordinary slow Iso-chromatic plates than any other, but I have not much doubt that filters act in nearly or quite the same manner with other Iso-chromatic plates which are not sensitive to red. Contrary to the recommendation of some makers of plates, yellow glass or other single-color filters are of little use, as they do not give a true rendering of red, green and blue, as red especially acquires only about the same density in a negative taken through such filters as dark blue should have, nor will they cut down the effect of the atmosphere sufficiently for us to obtain a negative of a view embracing objects as near as forty feet and as distant as seven to twenty miles in one exposure. To do this successfully we must use a compound light filter not necessarily a combination of the same colors in every filter, and I think my statement that I have successfully taken negatives of objects at these distances through yellow and blue, red and blue, and red and green filters with one exposure for each negative should go a long way towards correcting the prevalent misapprehension which leads some writers to aver that "blue should not be added to a compound filter because the mixture of blue and yellow forms black"—which is not exactly correct, as may be proved by any reader making an exposure upon a colored chart through yellow and blue glasses and so judge for themselves. With lens stopped down to *f*-48, three or four minutes' exposure will be necessary in mid-day sunlight. To reduce the effect caused by mist partially obscuring distant objects, red and blue should be used and about six minutes' exposure given; but only the green filter will enable an Iso-chromatic plate to give a correct representation of a color chart or a sunlight spectrum as blue glass contains or passes too much red and that color therefore is much too transparent in a negative taken through red and blue. To show that red (vermilion lettering placed on a dark blue ground) is a lighter color than the blue we must use red and green glasses, and this filter I have found enables a plate to show by differing densities light and dark shades of red, green, blue, yellow, brown and pink almost or even quite correctly, and moreover, that white paper is lighter than the lightest color. The green glass must have no traces of blue in it or red will be too transparent in the negative. The red glass must be thinner than the green or light shades of colors (a very light shade of blue-

grey for instance) will develop not much denser than black. By the word "red glass" I do not mean ruby red. With an aperture of f -48, six minutes' exposure will be about right in sunlight, and development should be stopped when red is dense enough, as if it is continued till plate fogs over, black will become as dense as dark blue, or too nearly so. I may also add these filters give no detail in dense shadows and I therefore doubt if there really should be any in a properly exposed chromatic negative. Red and green in combination appear to be the only colors suitable for making a color-correct filter for plates not specially color-sensitized for red, and snapshot exposures therefore do not appear possible when taking a color-correct negative. The greater amount of detail and clearness in pictures printed from them compensates fully for this slight drawback.

The Optical Intensification of Paintings

The following article by Professor R. W. Wood, of the Johns Hopkins University, Baltimore, which we quote from the "Scientific American," suggests a new application of orthochromatic photography which has obvious possibilities in the effective presentment of paintings such as is commonly done when a striking work of art is sent on tour round the country.

One of the great difficulties which the artist has to contend with in representing scenes in which great contrasts of luminosity occur is the comparatively narrow range of luminosity obtainable on canvas with pigments. According to Aubert, the whitest paper is only fifty-seven times as luminous as the darkest black paper, and this probably represents about the range obtainable in paintings. Contrast with this the enormous range of luminosity in a sunlit landscape, where the high-lights are many hundred times brighter than the deep shadows, to say nothing of sunset views, where the disc of the sun itself is to appear in the picture. As is well known, the colors of natural objects change in tint as the illumination is increased, green becoming yellowish, for example; and artists, by taking advantage of this circumstance, consciously or unconsciously, are able to suggest a high degree of illumination without actually reproducing it. Pictures are sometimes improved by strong

local illumination; anyone who has spent much time in sketching must have frequently noticed what pleasing effects are sometimes produced when a ray of sunlight, filtering through the trees, falls upon that portion of the canvas which represents, say, a sunlit meadow. Noticing effects of this kind so frequently, I have been led to experiment with carefully graded illumination, and have obtained results of remarkable beauty. If we can produce a strong illumination on all of the high-lights of the picture, and a feeble illumination on all of the shadows, we shall obviously greatly increase the range of luminosity. This may be done by a very simple means. We have only to take a photograph of the painting on an orthochromatic plate, preferably on a red-sensitive plate with a suitable ray filter, make a lantern slide from the negative, and project this picture, not on a white screen, as is usually the case, but upon the original painting. The experiment is to be made in a darkened room, of course.

Effects of a very startling nature are produced in this way, especially in the case of moonlight and sunset pictures with fine cloud effects. The most striking, and artistically the most pleasing, subject which I have yet tried is a little pastel of the market-place in Concarneau (Brittany) by Bullfield, which is a wonderfully sunny picture. Under the graded illumination of the lantern the picture becomes filled with a perfect flood of sunlight, and we feel at once that here for the first time we are looking at a picture in which the enormous luminosity contrasts of nature are really approached. If after looking at the picture illuminated in this way for a few minutes we remove the slide from the lantern, allowing a uniform illumination to fall upon it, we feel a decided shock. The picture looks as if it had not been dusted for ten years, the sunlight leaves it, and everything looks flat. As we become accustomed once more to the usual illumination, the appearance of the picture gradually improves. It is most curious, however, to note how a short view of the painting under the light of the lantern educates us at once to a higher standard of luminosity contrast, so much so, in fact, that when we change suddenly to ordinary illumination the picture at once strikes us as a very feeble attempt at anything like correct values. The effects are very different, according to whether we take our negative on an ordinary or on an orthochromatic plate, especially if there is much

blue in the picture. We can in this way alter the relation of the values in the picture, and study the effect.

It is my opinion that if the values are correct in the original painting, they will hold under the graded illumination produced by the lantern. If they are not right, the errors will be glaringly magnified. As yet I have not had an opportunity to experiment with many pictures, but the method is so easily carried out that anyone having a good lantern can repeat the experiment.

If the picture contains patches of bright, pure red, and a red-sensitive plate is not available, it is a good plan to touch up the negative, as otherwise the illumination of these patches will be too feeble. Any desired effect can be secured by local reduction or intensification of the negative or lantern slide. We can in this way experiment to our heart's content with a painting, altering the values at will without injuring it in the slightest. A most curious effect is obtained if the negative itself is projected upon the painting. This, of course, lessens the contrast, and if the negative is a fairly dense one, it may destroy the contrast almost entirely, making the picture look like an almost flat wash of chocolate. This experiment is instructive only as showing how completely the values in a picture can be controlled by local illumination.

The method is, of course, of very little practical importance, though a small exhibition of suitable pictures illuminated in this way would be well worth attending. Each picture would have to be illuminated by a separate lantern, of course.

In repeating these experiments, the only difficulty which will be found is getting the lantern picture "into register" with the painting. In taking the negative, care should be taken to have the painting exactly vertical, and the lens of the camera directly in front of its center. The same conditions should obtain during the illumination of the painting. It takes some little practice to get the projected picture exactly the right size. The best plan is to select two conspicuous objects, and note whether their distance apart is greater or less in the projection than in the painting. If the former is found to be true, the painting should be brought nearer to the lantern, the focus being changed, of course.

Very likely scenic effects on the stage could be heightened by employing this method of illumination, or some modification of it.

Copying Old and Faded Photographs

Mr. Charles Evans gives the following valuable details concerning this work in "Photography."

The advice generally given on copying such prints is to go on as if they had full vigor and it will be found that they have photographically much greater contrast than they seem to the eye to possess. It is only reasonable to expect that this should be so, since they are generally of a distinct non-actinic color, but the amateur who relies on the color to give his photograph contrast that is not possessed by his original will find that he is leaning on a bruised reed. Still more will this be the case if, as was actually done by a friend of the writer, he thoughtlessly uses an orthochromatic plate and a yellow screen. In this case the non-orthochromatic character of the ordinary plate upon which he was relying to get contrast not possessed by the print he was copying was deliberately sacrificed. If he had done just the opposite and had used an ordinary plate with a blue glass screen he would have been more likely to get what he required. For the same reason one should never attempt to copy a badly faded print by artificial light unless it is by means of magnesium ribbon, as when gas or lamp light is used we get much the same result that follows from the use of a yellow screen. What is wanted is light that is rich in blue and violet rays and for this there is nothing better than daylight, and the strongest daylight that is to be obtained.

The problem before the photographer is to make the most of the poor contrasts which his original has to offer. In copying under the most favorable conditions the amateur realizes no doubt that the tendency of his work is to get less contrasts than there is in the print copied, and here is a case where he can afford no loss at all, but wants rather a gain. The idea for which some of the text books are responsible that under-exposure will give increased contrasts is one which he must banish from his mind at once. If he cannot, let him try and see whether by under-exposure he can get not more contrast than, but merely as much as he can get by correct exposure. A single experiment will no doubt be sufficient. He must fully expose, if anything even over-expose and must then fully develop. Let him get a slow plate and

a fairly strong non-fogging developer. Let him put aside for once his methods of determining when to stop development by looking through the plate, or rather let him see how long it takes to give him what he thinks is a fully developed plate and then just go on for just as long again. The image will seem buried in the film, no doubt, and the negative he may think is spoiled, but when he fixes it out he will find that he has got more contrast than he suspected, and it is quite possible he may have all he wants. The great secret, if it may be called a secret, is to give a full exposure and a very full development.

In spite of all this he may still have less contrasts than he wants. The only plan left is to endeavor to restore the print, but this is a risky operation and should only be attempted as a last resource and after the best possible negative has been made from the unrestored print, so that if the worst comes to the worst there is always this as a record. The usual method for restoring a faded silver print is to remove it from the mount by soaking for half an hour or so in cold water and then to place the print in the ordinary solution of mercuric chloride such as is used for intensifying. In this the image will almost if not quite disappear. The print is then well washed, and when there is no doubt that the mercury solution has been completely removed, it is placed in an extremely dilute hypo bath (ten grains to the pint) in which, if all has gone well, it will slowly assume a greater degree of vigor than it had at the first. It only remains to wash and dry it. But as I have said before, this process should only be adopted as a last resource.

Pinatype

The method of production of prints by the pinatype process is thus described in a recent French patent (No. 337,054), the particulars in which are presumably the same as those of the German patent No. 176,693, taken out on December 20, 1905:

A gelatine film, sensitized with bichromate, should be exposed under a positive, and thus be hardened in places. After removal of the excess of the bichromate by washing, the gelatine film should be stained by immersion in solutions of dyes, the excess of dye solution rinsed off, and a damp gelatinised paper brought into intimate contact with the dyed film. By this process the dye

should be transferred from the unexposed places to the gelatine paper, and a positive colored image be formed. It has been found, however, that the formation of a colored image by this process is only partially, or not at all, successful. For the blue images the following dyes have proved to be unsuitable: patent blue, methylene blue, methylene violet, alizarine blue and sulphocyanine; for the red images: fuchsine, saffranine, and rosine are unsatisfactory, the rhodamines reverse the image; of the yellow dyes tartrazine, auramine and picric acid are not suitable; of the green dyes, malachite green is useless, acid green gives good pictures, which, however, are wanting in sharpness. If a satisfactory picture is to be obtained, the dyes used must answer to the following requirements: 1. They must stain only the unexposed and not the exposed bichromated gelatine film. 2. They must adhere firmly to the gelatine film on the glass plate, and not be removed by washing. 3. They must transfer to the gelatine film of the paper without diffusing into neighboring parts of the gelatine film on the paper, otherwise confused pictures will be the result. Only a few dyes were found to answer these requirements, and three dyes were required which should reproduce the natural colors with great accuracy. They are (1) for blue: easily soluble sulphonic acids of the induline blues, or diamine pure blue; (2) for red: natural carmine; (3) for yellow: yellow mikado or primuline dyes. To make the three color print the process is as follows: From the three constituent negatives three transparencies are made, and bichromatised gelatine plates exposed under them. The gelatine plate corresponding to the red filter negative is stained up by immersion in a 4 per cent solution of diamine pure blue, and the image transferred to gelatinised paper. The gelatine plate corresponding to the green filter negative is stained up in about a 4 per cent solution of carmine and washed. Then the previously obtained blue picture, which may be still damp or again dampened, should be laid on the red stained plate so that the outlines exactly coincide, the paper squeezed down well and stripped after ten or fifteen minutes. Finally the gelatine plate corresponding to the blue filter negative should be stained up in a 4 per cent solution of diamond yellow R, the excess of dye rinsed off and laid on the blue + red picture so that the outlines coincide. After about

fifteen minutes the paper can be stripped and the print will be finished. The patent claims: A process for the preparation of three-color photographs, in which a gelatine film sensitised with bichromate is exposed under a positive, and after removal of excess of the bichromate is stained up in an aqueous solution of dye, which only stains the unexposed parts of the gelatine, and the printing plate thus formed is brought into contact with damp gelatinised paper. The dyes used for staining the three bichromated films are: (1) An easily soluble sulphonic acid of the blue indulines or diamine pure blue; (2) natural carmine; and (3) yellow mikado or primuline dyes.

Per Cent. Solutions

What is really the right way to prepare a per cent. solution of a certain strength, is a question that I do not care to discuss for the reason that I have never been able to figure out the real need of making the matter so important. Granted that certain of our expert chemical friends may insist on care being used in the making up of formulae which they give us, is it not quite likely that if hair-splitting was necessary they would have to have recourse to fractions? As it is, five per cent. is quite often but one way of saying a weak solution, and two per cent., for instance, is simply more than one and less than three. If you are advised to use a four per cent. solution of ammonium persulphate as a reducer, it is evident that any brain worry over the exact method of compounding is ridiculous. Multiply the four by five and you have twenty grains. Add this amount to an ounce of water and rest assured that you have it near enough right for every possible purpose. For any other strength, simply multiply the per cent. required by five and add that number of grains or minims to each ounce of water to make the amount the solution desired. Should you come across a formula in which a certain ingredient is to be "added slowly while stirring" or some other direction leads you to believe there is a delicate chemical reaction involved, it will be well to use more care. However, such cases are rare in the extreme, as formulae of that character are almost invariably written out in exact quantities.

The Wager Exposure Scale and Wager Definition Scale

These two most practical and efficient aids to the securing of correct exposure are now being marketed by Burke & James of Chicago, who, owing to their close connection with the trade throughout the country, will no doubt be able to add still greater popularity to these two well-known articles. The exposure scale is known for its high efficiency, accuracy and great convenience as also for the simplicity of its manipulation. The definition scales determines absolutely and accurately the longest exposure allowable to produce satisfactory negatives of all classes of moving objects and with the fast-increasing popularity of focal plane-shutter work will be in great demand. Both retail at the low price of twenty-five cents, except that there is an aluminum form of the exposure scale that sells for seventy-five.

The Nelson Factory in Good Hands

Burke & James, the enterprising manufacturers of Chicago, have just consummated the purchase of the factory, stock, machinery, patents and good will of K. Nelson, heretofore the largest manufacturer of cameras in Chicago. The new owners now operating the factory and turning out the cameras and like goods as heretofore. The high quality of these goods are known to many of our readers, and the business being in the hands of Burke & James, there is assured even a higher grade for this excellent line of photographic goods.

Secession Exhibition

An exhibition of photographs by Alice Boughton, of New York; William B. Dyer, of Chicago, and C. Yarnall Abbott, of Philadelphia, is being held at the Little Galleries of the Photo-Secession, 291 Fifth Avenue, New York. This exhibition is a continuation of the series started some months ago, a series of exhibitions which is continually growing in popularity as its merits become known. This particular collection was placed in position February 19th and will be removed March 6th. The galleries are open from 10 a. m. until 6 p. m., Sundays excepted.

The Amateur and His Troubles

By FAYETTE J. CLUTE

About Washing Negatives

A great many workers think that this question of washing out all the hypo is easily settled; one simply has to wash them long enough and use plenty of water, and that is all there is to it. But is it? You all know how foul and slimy a sponge will become if subjected to a constant flow or even a prolonged soaking in fairly clean water for a considerable period. The gelatine emulsion on the plate or film is only a more delicate formation of the same character as the sponge. Prolonged washing, except in distilled or well-filtered water, is sure to result in the accumulation of considerable dirt in the film. In addition to this, not all of us have the time and water at our disposal to so generously bestow both, that perfect washing is assured well beyond the problematical danger point which our ignorance makes so uncertain. For these reasons it will be well to look into the matter in order that at least the detrimental effect of prolonged washing may be avoided. Thorough fixation, and fixation away from strong light, is of much more importance. There is always one or two points on a plate or film that are last to lose the whiteness of the unreduced silver in the fixing bath. At the instant that the last patch of white disappears the emulsion at that point is charged with an insoluble and transparent chemical compound of hypo and silver which must have further action of the fixing bath before it becomes soluble, and consequently removable by the washing to follow. If the negative be withdrawn from the fixing bath before this further action has taken place the washing fails to remove the compound and it later turns into a stain that is laid at the door of incomplete washing and unremoved hypo. If you wish to satisfy yourself how harmless a little hypo really is, take an old negative that you know has been well fixed and washed and give it a good soaking in a

clean solution of hypo. Then wash it slightly so as to remove the excess of the salt which might crystallize out and in so doing rupture the film, and place the negative aside to dry. Subject this negative to sunlight, heat, moisture or any other trying conditions you may wish, and while you may possibly succeed in securing a whitish powder on the surface or a mildew if the dampness be excessive, you will be disappointed in securing a stain. Should you, however, attempt to intensify the negative you will find that the hypo is prepared to make serious trouble. Experiments carefully carried out in the past have shown that one part of hypo thoroughly interdiffused in ten thousand parts of water, this in turn thoroughly interdiffused through the gelatine film of the plate, was sufficient to produce a decided red stain upon intensification of the unwashed negative. Increasing the bulk of the water by one-half and the obtainable stain was quite faint. Doubling the water or making the proportions one of hypo to twenty thousand of water and no stain was obtainable. If, then, the surrounding water of a washed negative, thorough interdiffusion being assured, contains no more hypo than one part in twenty thousand, it is safe for intensification. Herr Janko, who carried out these experiments some years ago, then went on to prove that with a cubic inch of water to each square inch of film surface, perfect equilibrium of interdiffusion was complete in two hours. Three such soakings, employing in all three cubic inches of water to each square inch of film surface, resulted in bringing the amount of hypo interdiffused in the water to the determined point of safety. Going further he determined that four changes of water at one hour intervals, six changes at half-hour intervals, seven at one-fourth hour intervals and ten changes at five minute intervals produced the same effect. He, however, specifies in his report that the plate

must either be placed in an upright position or suspended face downward in the water. This last procedure brings the time down to fifty minutes and the requisite amount of water, even with the comparative wastefulness, is about three quarts for a 4x5 plate. Now, if a washer is employed with running water, there are two things to be determined for each individual case; first, the efficiency of the washer, and, second, the necessary time such efficiency demands in which to reduce the hypo to the amount called for by the intensification test. The first, or efficiency of the washing box, is best determined by filling it with a solution of some coloring matter and then allowing fresh water to flow through. The time required to remove the color from the contents will give a very good idea as to the efficiency compared with another of better construction. It will be found that in some forms of washers an increase in the force of the flow is really a disadvantage; in others it will be found that portions of the contents are hardly affected by the flow through the box, and traces of the color will be left after considerable waste of water. The box arranged for the highest efficiency attainable, it then remains to determine the time necessary with a certain strength of flow. A few waste plates and the removal of them at stated intervals will give a series to be tested by passing them through the uranium process of intensification. Possibly the one removed at the expiration of ten minutes will show pronounced stain; the one removed at the end of fifteen, but a trace, and the one removed at twenty, none. One has then but to secure approximately the same flow of water and allow a couple of minutes' extra time, say twenty-two, and rest assured that in the future their negatives will receive the necessary amount of washing without any waste of either time or water. The table given above, as worked out by Herr Janko, will be found useful when one is compelled to use economy in the use of water, as in traveling. He suggests a light vertical celluloid dipping bath as suitable. In his experiments he used the uranium intensification test in preference to the starch or permanganate ones, as it was more directly photographic. All this may seem an unnecessary amount

of work to the average amateur, but at the same time there are not a few of us who like to know exactly what we are doing, and why we do it in a certain way. In addition to this the carrying out of the experiments suggested in the last part of this paragraph will be found interesting and instructive, even if the method adopted for future washing be not materially changed. It might be well to add that when a negative is found to have acquired a yellow stain as a result of improper fixation, a six per cent. solution will often prove effective. It should not be allowed to act more than three or four minutes, as one is simply taking advantage of the fact that it ordinarily takes such a bath from a quarter to half an hour to act upon the more delicate gradations of the negative.

**To Make a Wooden Tabletop
Alkali Proof**

A correspondent asks for the formula which went the rounds of the journals about a year ago under a title something like the above. It originated with the "Journal of Applied Microscopy," and, together with the instructions for applying, reads:

Three coatings are required on the wood, as follows:

NO. I	
Iron sulphate	4 ounces
Copper sulphate	4 ounces
Potassium permanganate	8 ounces
Water, sufficient to dissolve	100 ounces
NO. II	
Aniline	12 ounces
Hydrochloric Acid	18 ounces
Water	100 ounces
NO. III	

Linseed oil, thinned with turpentine.

The wood to be treated is first cleaned of any varnish or paint. It is coated with No. I, which, upon drying, leaves a precipitate of chemical salts on the surface of the wood. This precipitate is rubbed off and the second solution painted on. After a few hours the wood becomes an ebony black in color. When the wood is thoroughly dry the linseed-oil coat is applied, after which the wood will be found to take a polish. Strong acids and alkalis are said to have little effect on wood thus treated. After this ebony-colored wood is stained by chemicals it can be washed with soap and water and the above treatment repeated.

Diluting the Developer

Now that we hear so much about diluting the developer and the production of soft negatives, it is well to call the attention of the worker to the fact that this dilutant should take the form of a solution of sulphite of soda. Sulphite of soda is used as a preservative in the developer, and its amount does not depend upon the quantity of developing agent contained in the developer, but upon the total bulk of the solution as used. With our present day non-staining developers, this matter is not as important as would be the case were we dependent upon pyro alone, but the fact remains that all developers have a decided tendency to oxidize, and sodium sulphite should be added when a further dilution of the developer is made. If you will figure out how much each ounce of your developer contains when mixed according to instructions, you will be able to estimate about what will be needed in the added water of dilution. Tank development, of course, is a somewhat different proposition, as the solution is not spread out and constantly turned and exposed to the air as in tray development; consequently the suggestion does not apply with the same force.

Rendering Paper Negatives Transparent

Personally I never trouble to clear paper negatives, and believe that it is often a detriment. For those that think differently, here is a new formula from "Photo Notes":

Turpentine	12 ounces
Resin, powdered	4 ounces
Gum elemi	4 ounces
Paraffine	2 ounces

Heat in a large enamelled pan with constant stirring. Have a lid ready to put on, should it take fire. When well frothed add another twelve ounces of turpentine and keep in a wide-mouthed bottle. Apply to back of print with a wide brush, and when first coat is dry repeat once or twice. Should white spots appear later, coat again.

Microgen Formula for Tank Development

One of our Wisconsin subscribers asks for a suitable formula using microgen and requiring thirty minutes. The matter was re-

ferred to Mr. Martin, the inventor of microgen, who replies as follows: The formula below is the one that I furnished Burke & James for use with their developing tanks and, as the form of the tank makes no difference, or, rather, requires no different structure in the developer, you will find that it will serve with developing tanks of any style of architecture.

MICROGEN TANK DEVELOPER FORMULA.

Microgen	60 grains
Potassium meta-bisulphite ..	24 grains
Sodium sulphite, dry	60 grains
Sodium carbonate	80 grains
Water	40 ounces

In mixing the above, dissolve the meta-bisulphite and normal sulphite in four ounces of water and then dissolve the microgen in the solution thus made. Dissolve the carbonate in another four ounces of water. Mix the latter into the former and then add the balance of the water.

Sensitising Post Cards

A correspondent in Ohio writes to ask about a formula that was given in one of the photographic magazines about two years ago, as suitable for post cards of the ordinary kind, and which required only a solution of ferricyanide for developing. The formula originated in Germany, and is as follows:

Ammonium ferric oxalate	160 grains.
Ammonium ferric citrate	160 grains.
Water	5 ounces.

The cards are coated with this and when dry exposed under a negative until a faint image is secured. A ten per cent. solution of potassium ferricyanide is used as a developer. If the print be over-exposed a few drops of ammonia added to the wash water. Weak prints can be strengthened by immersing them in a weak solution of hydrochloric acid.

Foggy Negatives

A correspondent in Oregon writes that he is confronted with a problem that he cannot solve. Using his regular camera and lens he invariably secures brilliant negatives of good quality, but wishing to take some long focus views he put a large lens on his camera, one of about double the focal length; in fact, one that just used the full dray of the camera. With this larger lens it seems impossible to secure other than fogged negatives that

have the appearance of being badly over-exposed, despite the fact that he has cut down the exposure quite materially. From the prints sent I do not think the trouble comes from over-exposure. Neither do I believe the camera is at fault, else fogged negatives would be secured with the smaller lens under favorable conditions such as might occur when the slide is long removed while bright sunlight was present. The trouble is due to the larger lens, carrying a much larger circle of light into the camera, and the bellows being fully extended, the folds do not intercept this superabundance, and the light falling upon the nearly flat sides of the interior, is reflected backward and forward, confusing the direct rays to the plate and some of them impinging upon its surface after being reflected. With the smaller lens and the bellows only about half extended the small excess of light is caught by the front side of the folds, is not allowed to reach the plate and being much less in volume, causes little trouble. All that my correspondent can do is to construct a lens shade with an opening of the same relative dimensions as the plate and use that on the lens. The opening in the front of this shade should be at just such a distance in front of the lens that only the rays of light that form the image desired on the plate shall be allowed to reach the lens. An alternative and less satisfactory method of overcoming the difficulty is to insert a few blackened cardboard kits or diaphragms at such points within the folds of the bellows that their front surfaces will hold back any light rays not needed in the formation of the image to be received upon the plate. With the long extension of the camera the folds will not hold these in place, as would be the case with a shorter focus lens, and the size and shape of the openings in each would have to be arranged very carefully.

Aristo School in New York

The first Aristo School of Photography, held at the store of George Murphy, Inc., in New York, April 2nd to 5th, was a decided success. During the four days and one evening session nine hundred photographers visited the rooms and inspected the lamp and saw the demonstrations, and producing negatives of fine quality, posing made under the light, enlargements pro-

duced by the Folmer & Schwing Enlarging Camera in connection with the Aristo Lamp, and without the aid of condensing lenses. Talks on posing, lighting, retouching and general photographic topics were made, and not only the school was a success as regards the demonstrations, but also of benefit to the visitors, and met with their decided approval—so much so that we hope to see another school here.

During the school the Century Company's Studio Outfit was shown, the Folmer & Schwing Enlarging Camera, the Percy King Light Controller, the Bausch & Lomb Unar Portrait Lens, and a large number of negatives were made with the 3A Ross Portrait Lens.

Green Tones on Solio

A correspondent writes that he has been able to secure very pleasing green tones, such as are suitable for wood interiors, by printing Solio paper about half the usual amount and then developing in a solution composed as follows:

Gallic acid.....	1 drachm
Water	8 ounces
Acetic acid, glacial.....	2 drachms
Lead acetate, about.....	30 minims

The lead acetate is to be added last, drop by drop, until the solution is rendered slightly cloudy. Adding three minims to each ounce of the solution will give light, soft greens and increase detail. Increasing the gallic acid will give darker browns. Calcium acetate added as recommended for the magnesium will give pleasing browns. The bath will not keep, and should be mixed just before using. The thorough dissolving of the gallic acid must be assured by first dissolving it in part of the water made quite hot. Development should be carried a little further than required and then placed in a salt bath, one-half ounce of salt in sixteen ounces of water. Fix and wash as usual, except that the fixing bath must be absolutely free from acid. Our correspondent fails to send any samples, and I am unable to judge just what he may call very pleasing tones. I have met this or a similar formula before, and have an impression that some experience is required before the most satisfactory results can be secured by its use.

Club Notes

Prizes for Photographers

The Los Angeles Municipal League wishes to obtain views that convey civic object lessons, and to that end offer prizes as follows: For the best photograph showing "ugly spots" in that city, occasioned by billboards, tumble-down sheds or buildings, bad streets, dirty alleys or sidewalks, vacant lots covered with rubbish, neglected growth of trees, hedges or weeds, or any other views showing the injury to decent neighborhoods by unnecessary disfigurements:—First prize, twenty dollars; second prize, ten dollars; and third prize, five dollars. It is understood that any views that fail to take prizes are open to purchase by the League at a price not to exceed one dollar each. Not more than one prize shall go to any one individual, but all views offered by one person will be considered for competition or for purchase. Negatives of accepted photographs will become the property of the League. Contest open to both amateurs and professionals. Views of poles and Mexican house-courts are barred. They have plenty of these in stock. Location of view must be given with each photograph. Contest will close May 30th, next. Size of pictures not less than 4x5. Smaller pictures may be enlarged to this size. Questions relative to contest will be answered by C. D. Willard, Secretary Municipal League, 213 Bulard Block, Los Angeles, California.

Brooklyn Camera Club Dinner

Hearty goodfellowship predominated at the banquet tendered the members of the Brooklyn Camera Club, by its President, William T. Knox, at Lifshy's Studios, 837 Manhattan Avenue, Brooklyn, Saturday evening, February 9th. Out of sixteen members constituting the "old guard," fourteen were present, William Reiter and Charles Shipman, who were unable to be present, being remembered by their more fortunate fellow members during the course of the

banquet. Organized ten years ago, the Brooklyn Camera Club has achieved for itself a high standing in photographic art, and one that is not confined to local fields. Its members have ventured into many of the most prominent exhibitions, and as a result they have many trophies to show for their success in wider fields. A year ago when Mr. Knox was chosen President for a second term he was presented with a handsome loving cup by the members, and at the election this year he was their only choice for the office and was returned for a third term. In return for the honor and appreciation Mr. Knox invited the members to be his guests at a banquet. Occupying the head of the table, he found around the board William Zerbe, Jr., U. G. Dodson, George Boyd, Edwin G. Torbohm, George Klippel, P. A. Merrigan, W. E. Houghland, Harry Taylor, John Hanlon, Andrew Switzer, Charles Lawless, Samuel H. Lifshy and Fred Teichman. Witty and entertaining speeches, anecdotes of picture hunting trips, and stories of prize winnings, went around the table until a late hour. As a final feature to offset the many rumors that the Club was contemplating disbanding, it was resolved to continue the organization, with meetings to be held throughout the year.

U. G. DODSON, Secretary.

Wisconsin Camera Club

The Wisconsin Camera Club's program for April is as follows: April 1st, Press Night, for artists and representatives of the press. April 2nd, Club night, for members and their friends. April 3rd to 10th, inclusive, exhibit open daily, 10 a. m. to 9:30 p. m. April 23rd, lecture on composition, Prof. Mueller. April 30th, lantern entertainment. Slides by members, who are expected to bring their best work. Selections to be made for club exchange box. March 26th, Prof. Mueller's second talk on composition. Executive committee, 7:30, March 26th. Members are asked to remember that the print contest closes May 6th.

Chicago Camera Club

The April Bulletin of this progressive Club reads as follows:

April 4—Set of interchange slides and test night for members' new slides. It is strongly urged that our members begin now to make up their slides for the box we must furnish the interchange this year. By beginning this early, we will have an opportunity to work up our slides, thereby enabling us to have an especially fine lot. April 11—Demonstration of Artura paper by the manufacturers. We have been glad to favor manufacturers of supplies for our work in the past. We feel that by so doing our members are given a thorough knowledge of the many different papers and the like on the market, and can thereby judge for themselves as to the merits of each. April 18—Exhibit, for this evening only, of portrait work by our members. It is hoped that every member will bring with him some of his work in this line. In this connection Mr. Hale will give a demonstration of negative retouching. We will try to arrange to have prints made from negatives before and after retouching. April 25—Talk on composition, by Walter Marshall Clute of the Art Institute. Mr. Clute and his very interesting and instructive talks are so well known to most of our members that the mention of his appearance is sufficient to insure a goodly attendance. Our directors have been pleased to receive several applications lately, but in order to properly conduct the affairs of our Club, we should have more members. You must know some good man who is more or less interested in photography, who would come in if sufficiently urged. We need him, so get after him.

CLARENCE B. HALE, Secretary.

The American Federation of Photographic Societies

The annual meeting of the Board of Governors of the American Federation of Photographic Societies was held in the rooms of the Pittsburg Press Club on March 20th, 1907. One motion in which was embodied the decision to abolish the present classification of clubs, to fix the dues of all clubs at \$60 per annum, and to divide the express charges of the traveling expenses of future Salons pro rata among the clubs holding the same, contained sufficient matter to considerably

change the policy of the organization and caused a good deal of discussion, but was finally unanimously adopted. Heretofore there have been three classes of clubs paying three different amounts of dues and entitled to different privileges. The passing of the motion puts all upon an equal footing and does away with the minor exhibitions, leaving these to the management of the various clubs, and will simplify work at Federation headquarters. The only other change in policy was the abolishment of the prize system which existed in the purchase of pictures chosen by the jury. Hereafter the Federation will purchase no pictures and offer no prizes of any kind.

The President was authorized to appoint a committee to be known as the Publishing and Publicity Committee, whose duties will be to print and distribute all Federation literature and to furnish the photographic magazines and other sources of publicity with news and any other interesting reading matter, pictures, etc., which might tend to attract the attention of the public to the Federation and its work. The report of Treasurer Phillips showed the Federation to be in good financial condition, with all bills paid and \$380.05 in the treasury. Mr. W. E. Strayer, of Wilkinsburg, was appointed Secretary to fill the unexpired term of Paul H. Reilly, resigned.

The following preliminary jury for the fourth salon was elected: Wm. H. Zerbe, Wm. T. Knox, Frank G. Wood, Dwight A. Davis, Wm. H. Phillips, John Chislett, H. W. Minns, W. S. Cline, R. E. Weeks, D. H. Brookins, R. L. Wadhams, R. L. Sleeth, Jr. Preparatory work on the Fourth American Salon will now be immediately taken up.

W. E. STRAYER,

Chairman of Publishing and Publicity Committee.

Waterproof Spotting Colors

A correspondent in Michigan wants to know what he can use to spot prints so that the work will not come off should the prints be subjected to a washing in water afterwards. All that is necessary is for him to use a ten-per-cent solution of bichromate of potassium in working up the colors used and after the print is spotted, expose it to a strong daylight for an hour or so before allowing it to be washed.

Our Book Shelf

"Hunting Big Game With Gun and With Kodak"

This is the title of a most entertaining volume by William S. Thomas, just issued from the Knickerbocker Press by the publishers, G. P. Putnam's Sons, New York. While a handsome volume in its cloth and gold cover, illustrated with some seventy reproductions from original photographs by the author, it is the charming style of the story that gives the book its value to the general reader. The naturalist, the sportsman and the photographer will all find the book a treasure house of information, inspiration and invigoration. At the same time, the photographer is the doubly blessed in this respect, as he will find himself more in sympathy with the author's ideals, as Mr. Thomas makes a sportsmanlike plea for the use of the camera rather than the rifle in the pursuit of such game as is rapidly becoming extinct. One cannot doubt, after reading the enthusiastic narration of the author's enjoyable quest and seeing the photographic trophies that he has secured, that his satisfaction could be in any degree less than that of the most enthusiastic so-called "sportsman" whose chief desire is to kill.

Illustrated Post Card Journal

If you sell post cards you should be a reader of the "Postal Monthly." It is sent free to all dealers, and contains a complete list of all the desirable post cards on the market. No dealer can afford to be without this valuable book, as it keeps him in touch with all the latest post cards published and also quotes their lowest prices. It is full of valuable suggestions and bargains for the post card dealer, and can be obtained by sending name and address to Curt Teich & Co., the largest manufacturers of post cards in the United States, 117-121 E. Lake St., Chicago, Ill.

Good News

Messrs. Tennant and Ward, New York, send us the good news that after tedious and troublesome delays they are about to resume publication of *The Photo-Miniature*. The new number (No. 77) will deal with Focal Plane Photography, a subject which is now of wide interest, by reason of the number of focal plane enthusiasts, east and west. *The Photo-Miniature*, No. 77, will include a handy list of all the makers of focal plane cameras here and abroad, together with some carefully considered advice on the choice of a focal plane camera; the theory and practice of the focal plane shutter; the advantages of focal plane cameras for other than speed work; the facts for and against reflecting cameras; the calculation of focal plane exposures, with diagrams; the testing of focal plane shutters, and the development of extra rapid plates. All told, this looks like a good quarter's worth, and we are sure that the re-appearance of this famous little magazine will meet with its usual hearty welcome. It is promised that from now on *The Photo-Miniature* will appear more regularly, the publishers having accumulated a fair stock of practical information. Here's wishing them good luck.

Wellcome's Photographic Exposure Record and Diary

This is a book of some two hundred and sixty pages, memorandum size, gilt edge and lettering, cloth bound with flap fastener and pencil. A book that is found in the pockets of a good proportion of our friends who follow photography in England. Several pages are given to an explanation of the principles which underlie correct exposure, table for focusing by scale, developing factors, formulæ and the like. Ruled pages for recording exposures and a most convenient exposure disk on the last inside cover. If your dealer cannot show you one, send fifty cents to Burroughs Wellcome & Company, 45 Lafayette Street, New York.

"Focal-Plane Photography"

The above is the title of No. 77, the last issue of the practical little booklet issued monthly under the name of the "Photo--Miniature." That it is full and exhaustive goes without saying with those who are acquainted with the sterling merits of this publication. Were it not for the fact that the army of photographers is a constantly growing one, new recruits being constantly added in great numbers, we should wish to apologize for praising such well-known excellence. However, the bibliography of focal-plane shutter work is practically limited to this new booklet and for that reason it should have as wide a publicity as possible, particularly as it is so richly deserving of praise for its completeness and lucidity. Tennant & Ward, 287 Fourth avenue, New York. From all dealers, 25 cents.

"Printing Papers Described and Compared"

This is the title of a concise description of photographic printing processes showing the gradation capacity of different kinds of printing paper, with illustrations that convey an excellent idea of the subject in all its details. One is told how to test different kinds of papers and how to secure modified effects by the use of various formulae. The book forms the seventy-eighth number of the ever popular "Photo-Miniature," being the issue for February, the last one to be issued. Like all the others of the same series, it covers the ground most thoroughly and gives much information that is new and of added value as being identified with so much of value on the same subject.

The New Premo Catalogue

The new Premo catalogue is a beauty, and it tells about a new camera, the Premograph, that will interest every devotee of photography. Try and think of a perfectly practical and efficient little camera of the reflex type at the low price of \$10.00. It is made in only one size, $3\frac{1}{4} \times 4\frac{1}{4}$, and closed its largest dimension is but five and one-half inches. It weighs but twenty-nine ounces. The Filmplate Premo, introduced last year and found so popular on account of its many admirable features, comes in for a full description. A number of most excellent photographs are reproduced, particularly effective be-

ing some groups of very interesting children, on page 16. There are also several single portraits of bright youngsters, suggesting that the pictures are the work of fond parents who are keen enough to appreciate the advantage of Premo cameras. Your dealer will supply you with a copy of this new catalogue, covering the entire Premo line, or you can secure one by writing direct to the Rochester Optical Company, Rochester, New York.

Some Interesting Literature

The new Century catalogue, together with a handsome brochure on Cirkut cameras has just reached our desk, and to say they are most interesting is to put the matter in a very mild form. Every photographer should acquaint himself with the wonderful possibilities of the Cirkut Panoramic Attachment and the Cirkut Camera. While the cost is of course a little higher than that of an equally high grade camera, the average professional finds that the first negative made with the instrument, providing a suitable view is taken, will reimburse him for the outlay in prints sold. An amateur in one of our smaller cities in the Northwest wrote us recently that his first serious exposure resulted in the sale of over four hundred 36×6 prints at three dollars each.

Like all its predecessors, the new Century catalogue is a fine piece of work that would be attractive in any case, but it is doubly so on account of the interesting information which it contains concerning the latest advancements and improvements in camera construction. Every photographer knows of the superiority of Century cameras, and while improvements are expected from the enterprising makers, the seeming impossibility of making improvements makes a description of them from year to year an event to be looked forward to with interest.

Do Not Stare at the Officers

Army officers in uniform abound in foreign cities, and in Germany they resent being stared at by tourists, often assuming threatening attitudes in retaliation. As the law permits them to shoot civilians on provocation, it is wise not to excite them. It is well to remember that they do not feel obliged to turn out for pedestrians, even ladies.—The Travel Magazine.

Notes and Comment

The Importance of Fine Grain

Every advance in the speed of plates is of distinct advantage to the photographer, but when increased speed is also accompanied by increase in the fineness of grain, the advantage is many times greater, because finer grain means better detail, value and gradation in both high lights and shadows. It means better negatives every time.

If this is so, don't fail to read the advertisement of Hammer Dry Plate Company in this issue.

The Simplimeter

This is the latest addition to our supply of exposure guides, and its author certainly has incorporated several new features that should commend his work to the attention of those desirous of securing the uniform good negatives that are so sure to result from correct exposure. The table is so arranged that a glance suffices to determine the right exposure, and this is in marked contrast to the process involved in some others, length processes resulting in a fractional time not provided for by the shutter scale. In the Simplimeter are used only the ordinary markings given on regular shutters and variations one way or the other for conditions affecting exposure are all that one has to consider, this making the matter a very simple one. The Simplimeter will be sent postpaid by W. A. Suttle, 611 Granville Avenue, Chicago, Ill.

"Kodak Home Portraiture"

"Kodak Home Portraiture, a Booklet of Suggestions," is a book that every amateur should have. A copy of the new edition has just come to hand, and while it differs only in the cover from the one that we mentioned a few months ago, the pictures and text are as new and fresh as one could wish; in fact, it is this power of being interesting enough to command the second perusal that makes the highest praise of the little booklet justifiable. It can be secured of all dealers in Kodak supplies, or it will be

sent on request by the Eastman Kodak Company of Rochester, New York. And we would like to add a suggestion: If you have a friend to whom you think the prospects of securing lifelike and natural portraits and pictures with the minimum amount of trouble would appeal, get one of these little booklets into his hand. It is, with its charming examples of home portraits, all so seemingly spontaneous and natural, a strong argument in behalf of the Kodak system of photography. The work shown is all of the simplest character and such that it could be easily duplicated by any person of ordinary intelligence with a Kodak and a little patience.

A New Incorporation

Ralph J. Golsen, the well-known lens man, is about to incorporate the business under the name of Ralph J. Golsen Supply Co., now doing a general photographic supply and lens business at Nos. 58 and 60 Wabash Avenue, Chicago. Walter J. Lafferty, who for many years has been in the employ of Mr. Golsen, and who has a wide acquaintance among photographers, is an officer of the new company, of which Mr. Golsen is president.

"Agfa" Rapid Fixing Salt

This new product, to be dissolved in water according to the formula, has marked advantages over any other fixing salt now on the market. It not only produces a bath that achieves fixation in a much shorter time than has been heretofore possible, but unlike baths compounded of the ordinary hypo, the time required does not become materially lengthened as the bath becomes exhausted. The manufacturers have determined by careful experiments that the required time of perfect fixation is reduced one-half over that demanded by the best of the fixing baths at present in use. The comparative time at the tenth negative for a given amount of bath was one-fourth that of the

best acid fixing bath, and at the twentieth negative but one-fifth the regular time was required. This is a distinctive advantage where time is at all a consideration, as in traveling or in tropical climates where it is important that the plates should remain in the fixing bath as short a time as is possible. In any such cases the new salt is destined to supplant the present combinations made up in the form of hypo and acid hypo baths. Continuous roll films, the negatives of a studio and those made in reproduction work all require the cutting down of the time, and this new salt will aid materially in accomplishing the result. It is certainly destined to become most popular, particularly as the price is most moderate.

English and American Fluid Measure

The British pint contains twenty of their ounces and a little less than nineteen and a half of ours. Our pint contains sixteen of our ounces and a little more than sixteen and a half of their ounces. Our minim is about three per cent. larger than the British; our fluid ounce of four hundred and eighty minims is equal to 29.56 cc., while the British is equal to but 28.40. While the difference is not important in ordinary photographic work, the above explanation is made in reply to several inquiries which have reached me lately involving some added information that was wanted concerning formulae of a British origin which are sometimes published in this country without acknowledgment as to their source.

Enlarging Without Condensers

We are constantly in receipt of queries from correspondents asking concerning a practical piece of apparatus that will produce good results in enlarging and reducing without the need of employing condensers. From this we know that there is a real demand for such an instrument as the Graphic Enlarging and Reducing Camera, just placed upon the market by the Folmer & Schwing Company of Rochester, New York. This new piece of apparatus is intended for enlarging and reducing work on either plates or bromide paper. It is designed so that it may be fastened to an opening in the side of the dark room, projecting the enlargement or the reduced image, as in lantern

slide work, onto a movable easel, also within the room. The negative being used is illuminated by artificial light from the outside of the room, this light being concentrated by a reflecting cone projecting through the side of the dark room, thus receiving the light from the lamp with the reflections from the side of the cone.

The size of the enlargement is regulated by the focal length of the lens employed and the distance at which the easel is placed. The bed of the camera is telescopic in form so that a long extension will make great reduction possible, or by contraction of the bed the use of a very short focus lens is made available if desired. This feature alone will commend the camera to those who have tried to adapt an ordinary view camera to the work. A carrier supplied with a full set of nested kits, each supplied with spring fingers for holding the negatives, is a part of the camera. This carrier is manipulated from the inside of the dark room and with



the kits, permits the use of any size of negatives up to the full capacity of the camera. The side-shifting movement of this carrier, in conjunction with the rising and falling movement of front of camera, also permits of any part of the negative being enlarged or reduced.

The No. 1 Graphic Enlarging and Reducing Camera will take all size negatives up to and including the 5x7 size, the No. 2 all up to and including the 8x10 size, and the No. 3 all up to and including the 11x14 size. The prices are as follows: Including one Graphic Enlarging and Reducing Camera, with reflecting cone, negative carrier with full set of nested spring finger kits and three pieces of fine diffusing ground glass; No. 1 Graphic Enlarging and Reducing outfit, 4x5, \$22; No. 2 outfit, 5x7, \$24, and No. 3 outfit, 8x10, \$31. A complete descriptive illustrated circular is issued and may be had by writing to Folmer & Schwing Co., Rochester, New York, or to your dealer.

CAMERA CRAFT



SAN FRANCISCO, CALIFORNIA

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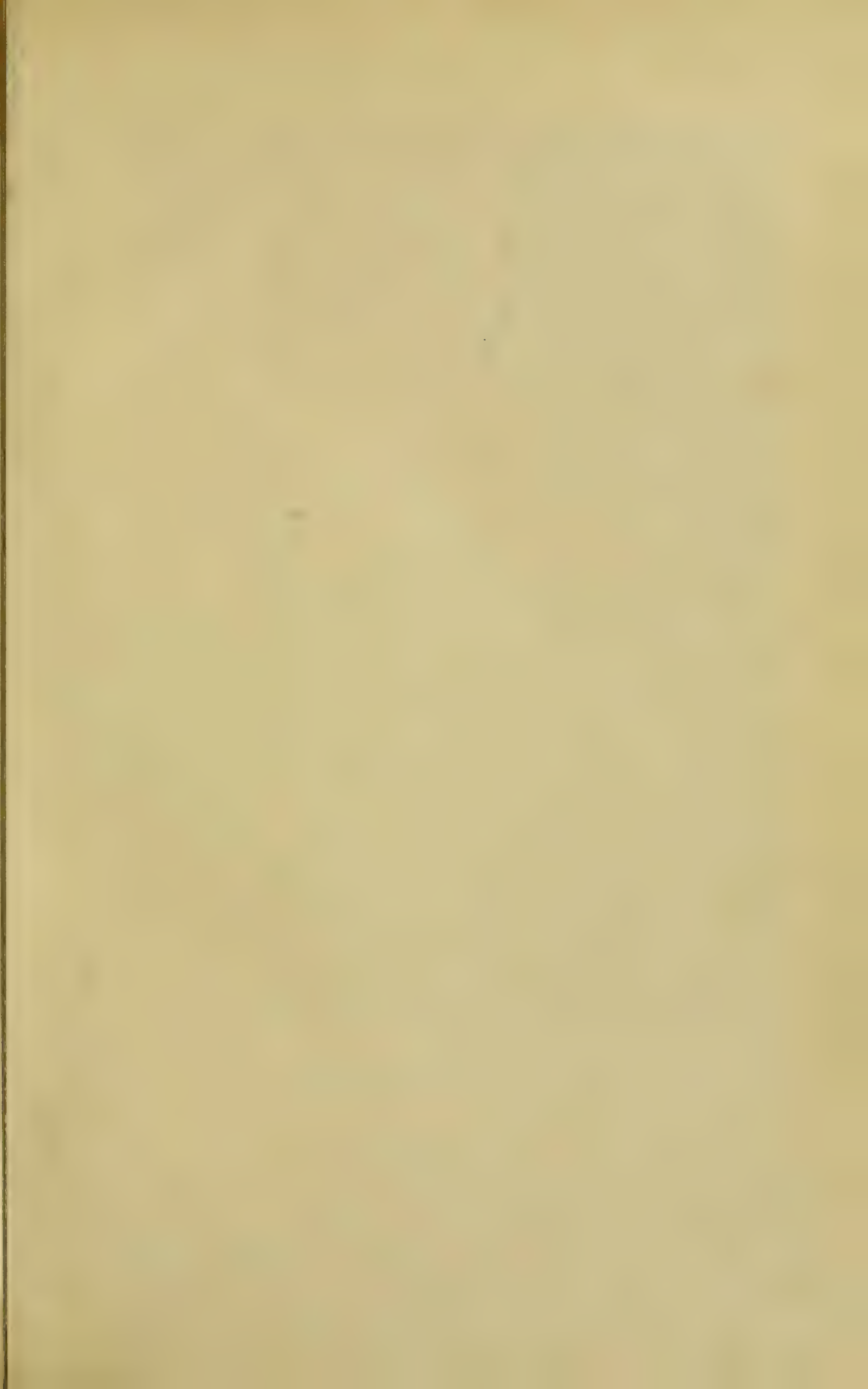
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CAMERA CRAFT

1915 POST STREET

SAN FRANCISCO, CALIFORNIA





THE DRAWING LESSON
By GEORGE T. POWER

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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SAN FRANCISCO, CALIFORNIA, MAY, 1907.

No. 5

Photography in New Zealand

By S. G. FRITH, Auckland

Illustrated by the Author

"New Zealand is a perfect paradise for the photographer," so exclaimed an American tourist when leaving Auckland recently, after a tour in this colony, on his return home by the S.S. "Ventura," bound to San Francisco



MAORIES AT RUSSELL, N. Z.

The scenery is so varied, the native life so fresh in its picturesqueness, that the visitor to New Zealand is kept in a perpetual state of wonder and pleasurable surprise. The first photograph shows a party of natives in one of their long canoes, twelve rowers and a "leader," the latter singing while the paddles keep time with the rhythm of his song. The native songs are

curiously weird, bringing into use but few notes, the rise and fall and abrupt ending of each phrase having a strangely wild and uncanny effect. The Maori canoe is carved out of a single log, originally by means of a stone hatchet, but, since the advent of the white man, the adze has been brought into us.

For intense excitement in photography let me recommend to you the snapping of a geyser in "action." There are certain indications foretelling when the activity may be expected. Till the "blow" takes place the onlookers must keep at a respectful distance to windward. Suddenly an underground rumbling is heard, a tremor is felt, and, with a terrific roar "up she goes" like a titantic whale blowing a steaming water-spout from the nether regions, a vast column of heated, sulphurous water up to a height of a hundred feet or more with a diameter at the orifice of five feet. No words can adequately describe one's feelings on seeing and photographing this appalling phenomenon of nature. Sometimes when these geysers are tardy in performing, the guides will irritate them into activity by throwing in quantities of rock and sand, the natural blow-up being caused by an accumulation of such matter acting like a weight on a safety valve.

The Maori youngsters are great at being photographed, but "utu" (pronounced "hoot") or payment is an absolutely necessary sequel, human nature being the same the wide world over. This word "utu" when pronounced correctly, may signify payment in the sense of revenge.

The next shows boys and girls who have been in for a swim together—sans everything—then back again to roll in the sand. Prudery has no part in the education of the young native.

Even the white folk enjoy a hot bath, as I can personally testify. Observe the group of men in the "Lobster Bath," in which the temperature varies from about ninety-seven degrees up to boiling point where the spring issues from the ground.

The carvings executed by the old Maoris are grotesque in the extreme, and, to the native mind, full of symbolic meaning. The example we give is a gateway to a pah, or Maori village. This gateway is fifteen feet high and made out of but two pieces of timber. Note the oft-repeated outstretched tongue, indicative of defiance. The connoisseur in Maori carving can tell in an instant whether a piece in question is the work of a native or of an uninformed imitator, by the manner in which the lines are arranged. Many fine specimens of this work are to be found on greenstone ornaments, pipes, canoe figureheads and the door-posts of the "whares," or native houses.

In the thermal districts of New Zealand the natives use the springs for all the domestic purposes to which hot water is generally applied. The food to be cooked is placed in a basket made from New Zealand flax (*Phormium tenax*) fastened to a rope made from the same material, and let down into the hot water where it is allowed to remain till, in due course, dinner is served, cooked to a nicety.

On going ashore, one of our rowers may meet a lady friend, and their manner of greeting is shown in the next picture. This is not an osculatory



WAOROA GEYSER
THE LOBSTER BATH
THE COOKING PLACE

SAND PIPERS, ROTORUA, N Z
GATEWAY TO MAORI, "PAH" OR VILLAGE
"TE HONGI," (THE KISS)

performance like our English kiss, but a pressing together of noses and a mumbling of kindly sentiments the while, the ceremony frequently occupying several minutes.

The evening bath is the "game" of the Rotorua (Big Lake) children; and, with the water at a temperature of about ninety-six degrees Fahrenheit, here they play by the hour, and eat, too, as may be seen in our illustration; while, in the background, is a "wahine" (matron) playing with her infant,



THE EVENING BATH, ROTORUA, N. Z.

the whole making a pleasant scene, the steam rising from the hot water pools giving a beautifully soft effect to the houses and distant hills.

Here, then, in New Zealand, the photographer has a wide field for the exercise of his chosen pastime. In this favored country are to be found the most perfect "light," the finest "atmosphere," and, we believe, more glorious effects in light and shade, forest and plain, sea and sky effects, than can be found in any other part of the world.

Color-sensitive plates are a necessity in the thermal regions, owing to the color of the deposits, and they should always be backed to assist in keeping the soft detail in the steam from the geysers and hot pools from being impaired by the strong light.

Halation

By E. STANLEY THOMAS

Illustrated by the Author

Probably, with the exceptions of stops, few subjects have received more attention than the causes and preventions of halation. The word itself is an irregular one, seldom found, except in the most modern and complete dictionaries; the "Century Dictionary and Cyclopedia" gives it as composed of halo+ation, and defines it as "The effect of excess of light, or of adventitious light, on some part of a negative." The original word halo is from the Greek *ἅλως* and literally means a threshing floor, the oxen used in treading or threshing out the grain, walked in a circle gradually wearing a circular path, and from that it was applied to circles of light seen at times surrounding the sun or moon, and by artists over the heads of saints. The cause, as is well known, in general terms, is excess of light in certain parts, primarily; reflection of light from back surface of plate, secondarily. If one will but observe closely an arc lamp, such as is used for street lighting, they will notice, in addition to the scintillating rays, that a halo, as we call it, more properly speaking, a mass of light, surrounds the whole, gradually shading into darkness; this mass in very cold weather, when the air is dry



A



B

and clear, is hardly perceptible, but is very obtrusive in a dusty or foggy atmosphere. Now the first cause of our halation is only what is actually presented to the lens, but this is more or less intensified by a reflection from the back of the plate, the latter trouble can be more or less obviated by backed plates, and double coated plates also, although I believe the latter are not quite as rapid as single coated, but of this I cannot speak from experience. To my mind the only proper and common sense place for a backing is between the emulsion and the glass; in other words, the backing is placed on the front of the plate and then the emulsion on that; in this case the coating will absorb the light before it reaches either front or back of glass and reduce this part of the trouble to a minimum. To exemplify, note the two diagrams: In A the light strikes the emulsion, passes to the coating and is largely absorbed before it strikes the back of the plate; in B there is nothing to absorb it until after it has passed through the plate and been reflected from the inside. Try placing a piece of plain glass on black cloth and see what a fine reflector you have. Theoretically, white behind glass should give a better reflection than black, because white is the reflection of all the combined colors in the spectrum, whereas with black it is the absorption of all and reflection of none, practically absence of all color; but the very simple test as above will show that the black gives a far better reflection.



No. 1

No. 1A

The majority of writers on this subject seem to hold to the theory that the largest amount of trouble is in the emulsion nearest the plate, and that theoretically we should use a fast developer that will bring up the image, and development should be stopped before it has eaten into the back of the emulsion; now if this theory is correct, why can mechanical reductions which we apply to the surface only reduce halation? Now I am only an amateur, a mere tyro, yet I am doing some investigating and thinking on my own on this line, and I make the assertion that not more than twenty-five per cent, if as much as that, of halation is due to reflection. What does the microscope show us? Take a plate with spots of halation and the portions that are properly exposed, show the grains very much resembling sand, now as we bring a spot of halation into the field, these grains, or more properly crystals, lose the sharp edges first, then the granular appearance becomes more rounded, until just at the edge they assume the spherical form, looking almost as round as tiny shot. Evidently here is a true chemical change in the shape of the silver formations that accelerates the effect of the rays and makes our halation show as white spots in the print. Mechanical reduction



No. 2

No. 2A



3,100 LAMPS, 2,000 CANDLEPOWER EACH

undoubtedly removes these globules first, thereby leaving the silver beneath in a condition more nearly normal. The next thing, as we cannot entirely avoid halation, on the ordinary plate, is to so conduct our work as to give as little of its effect in the prints as possible. Several methods are open to us. One is to bleach the negative, then redevelop and fix as usual. This gives fairly good results, but increases the density, so that time of printing on gaslight paper is more than trebled. Note the two street views, No. 1 and 1A. No. 1 was printed before this treatment, and No. 1A after; the



No. 1

No. 1A

exposure was fifteen seconds, with Plastigmat lens, f-8, Sigma plate and pyro developer. I find a more satisfactory method to be the tank system. I dilute the normal Edinol and soda developer with five times its quantity of water, add a few drops of fifty per cent solution acetone sulphite and development with a temperature of sixty-five to sixty-eight degrees. Development is completed in twenty-three to twenty-five minutes. Illustration No. 2 was made on a Sigma plate, Edinol tank developer. No. 2A, Sigma N. H. plate, pyro developer. No. 4 Sigma plate, pyro developer. 4A, Sigma N. H. plate, Edinol developer. No. 4 taken with Protar IV, f-16, 15 minutes' exposure, electric lights in windows the only illumination.

One other method I have also used, and that is the employment of concentrated Edinol developer, diluted one to thirty, and restrained with acetone sulphite. No. 3 was developed in this manner, and while it shows halation, the marvel is that there is so little. It shows one hundred lamps of two



No. 5

No. 5A

thousand candlepower each and all lighted. Sigma N. H. plate, Protar IV. lens, f-22 stop and four seconds' exposure is the data on this negative. As to printing paper: any printing-out paper shows much less halation from the same negative than a developing paper. In proof of this notice the illustrations Nos. 5 and 5A. The first is gaslight or developing paper, and the other on Lumiere's Actinos printing-out paper, single gold toned.

From these investigation and experiments it is evident to me that the excess of light in certain parts causes an alteration in the form of the silver crystals, destroys their normal shape and angles and leaves them round. The oxidizing agency in the developer partially reduces the rotundity and probably restores them to something near the normal crystal, hence the slow, prolonged developer has time to work the change which a rapid one cannot do. My time and facilities are too limited to carry out an investigation of this theory, but it certainly looks plausible.

Temperature in Development

By NORMAN McCLINTOCK

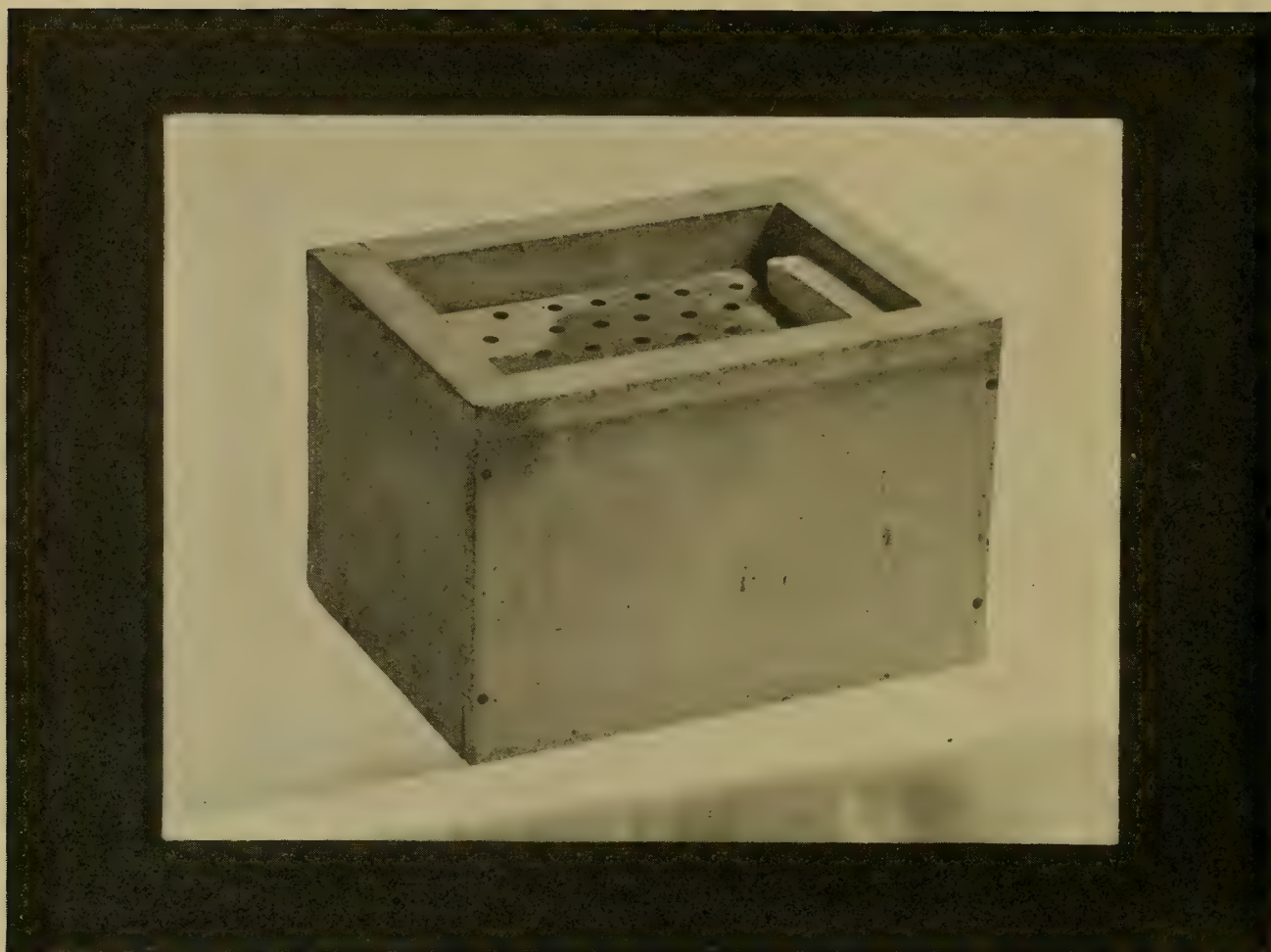
A New Device for Maintaining a Constant Temperature

Temperature forms a most important factor in the development of photographic negatives. Although this is true, I know of no question that is more slighted by both amateur and professional photographers. Apparently but few even possess a photographic thermometer. The slighting of temperature is evidenced by the fact that almost all writers upon the subject of development, and even the dry plate manufacturers, recommend the use of a stronger developer in winter than in summer. Of course the question of season has no effect upon development, except in so far as temperature is concerned. Accordingly, if the temperature of a developer can always be maintained at the proper point, there is no necessity for ever making any variation in the quantity of water, in order to produce uniform results, under similar conditions of lighting and exposure, and with the same plate emulsion.

I have frequently wondered that, in all the photographic literature I have seen upon the subject of development, no suggestion of a satisfactory mechanical device for maintaining an approximately constant temperature, under surrounding adverse conditions, was attempted. Doubtless the reason why greater accuracy in this respect has not been more generally sought after is due to the considerable latitude in temperature within which a developer will work. However, the importance of this factor has been proved by the scientific experiments of Watkins and of Hurter and Driffield. The importance of temperature is also emphasized by the author of "Practical Methods of Development" in Photo Miniature No. 66, wherein is described the new Wallace method of development. Indeed, this method is absolutely dependent upon a constant temperature, which the writer of the monograph referred to acknowledges is the only hard factor to control.

The object of this article is to describe a simple contrivance devised and used successfully for about three years by the writer for securing practically perfect control of temperature under the most adverse conditions of heat and cold ordinarily met with. When I say that the only dark room I have is in a cellar, where the winter temperature ordinarily ranges between 45 degrees and 55 degrees Fahrenheit, the reader will appreciate that this is an instance where "necessity is the mother of invention."

The following dimensions are for a box I constructed to hold a 6½x8½ or smaller developing tray, although, if I were to build another, I would make it much larger. A box, at first without either top or bottom, was made out of five-eighths-inch white poplar, sixteen and five-sixteenths inches long, twelve and three-eighths inches wide and eleven and one-fourth inches deep—outside measurements. A water-tight galvanized iron tank, thirteen inches long, nine inches wide and nine inches deep, was then made by a tinner. This tank was constructed with a broad flange at the top, which fitted snugly over the top of the wooden box and extended about one inch down the outer



sides of the latter, so that the box could be emptied of water without danger of wetting the insulation to be described later.

It will be seen that when the tank was fitted within the box, there was a one-inch space left between the wooden box and the galvanized iron tank, on all sides except the top. This space was filled with chicken feathers tightly packed, and held in place by screwing on the bottom of the wooden box. Next a removable lid, also insulated (on the top only) with a layer of packed feathers, was made to fit snugly over the top of the box. This lid was made for prolonged or "tank" development, and is needed only in case "tank" development is used. Four pounds of second grade chicken feathers, called "pickings," were used for the box and its lid. The only part now remaining to complete the apparatus was a false bottom for placing within the galvanized iron tank.

This false bottom was also made by a tinner, who bent, but did not solder, a sheet of galvanized iron, so as to form a stand eleven and one-half inches long, eight and one-half inches wide and seven inches deep. The top of this stand was punched full of holes to permit the free circulation of water below and above the false bottom. This false bottom was made one and one-half inches shorter than the longest dimension of the tank. This was to permit the insertion, in a vertical position at one end of the tank, of a flat vertical porcelain dish or tray, which held one 5x7 or 4x5 plate for prolonged "tank" development. This process can be carried on simultaneously with the development of a plate in an ordinary tray resting upon the false bottom.

It will be evident that, to use the insulated box described in detail above, it is simply necessary to fill the tank to about one-third of an inch above the false bottom, with water of the proper temperature.

This water, covering the bottom of the developing tray, will keep the developer at practically a constant temperature, as can be seen from the following tests, carried out at different times by the writer, and which plainly show the efficiency of the box. For the sake of convenience in making comparisons, I have arranged the temperature readings in tabular form. When making these readings, an accurate Fahrenheit thermometer for liquids was used.

	Temperature of Room	Temperature of Water	Temperature of Developer
Test No. 1 Commencement of Test.....	49°	72°	72°
End of 7 minutes.....	49½°	71½°	69½°
Test No. 2 Commencement of Test.....	54°	70½°	69°
End of 10 minutes.....	50½°	70°	68°
Test No. 3 Commencement of Test.....	50°	68°	62¼°
End of 1 hour.....	49¾°	62°	61½°
End of 4 hours.....	48¾°	60¾°	60½°
Test No. 4 Commencement of Test.....	53°	74°	70°
End of 2 minutes.....	55°	74°	70°
End of 4 minutes.....	53½°	73½°	70½°
End of 10 minutes.....	53½°	73°	71°

Tests Nos. 1, 2 and 3 were made during the winter of 1904, and test No. 4 during a cold snap in October, 1906. In test No. 1, the development of a 5x7 plate was complete in seven minutes. The difference of two degrees at the end of this test, between the water and the developer, represents the average which the developer quickly struck between the air at forty-nine degrees in contact with the surface of the developer, and the water at seventy-two degrees covering the bottom of the tray. That the average temperature should be so nearly that of the water covering the bottom of the tray is, of course, accounted for by the far greater heat conductivity of water than of air. Had the development been continued even much longer than seven minutes, this difference of two degrees would have been practically constant.

In order to keep the developer at a constant temperature from the beginning to the end of development, it is simply necessary, with the room temperature given, to have the temperature of the water from two to three degrees higher than that of the developer. This can be seen upon reference to test No. 4 in the table. Here the water was, at the commencement, four degrees higher than the seventy degree point I desired for the developer. This difference was a little too great, since the temperature of the developer rose almost one degree in ten minutes, although the temperature of the room was seventeen degrees lower than the developer. Between the ending of test No. 1 and the commencement of test No. 2, there was an interval of twenty-five minutes, during which time the box was uncovered. Tests No. 1 and No. 2 covered a period of about one hour, during which time the three and four-fifths gallons of water had lost but two degrees of heat, although the temperature of the room was nearly twenty degrees lower. Test No. 3 was an experiment tried to ascertain the efficiency of the box when covered with its insulated lid, during a four hour test of "tank" development with the

aforementioned vertical porcelain dish. Temperature readings were taken at the end of one hour and then again at the end of four hours.

It will be noted from the table that in four hours the loss of temperature was but two and five-twelfths degrees, with the room temperature about twelve degrees lower than that of the developer. In this test, no plate was actually developed, and water was substituted in the dish for developer. In this connection I wish to also add that I ordinarily develop a properly exposed 5x7 single coated plate in about four minutes, and that the tests described were made purposely longer to better demonstrate the efficiency of my box. During hot weather in summer I employ this box just as successfully, by filling the box with cold instead of with warm water; and at no time am I ever troubled any longer with the question of temperature, as far as the process of development is concerned.

If some of my readers should not care to go to the trouble or expense of building an insulated box like the one described, I would suggest that they try the plan of using a false bottom in an ordinary water-tight, deep, wooden trough or box. By thus using a large volume of water beneath a false bottom, a far more constant temperature can be secured than by the ordinary method of using a small volume of warm or cold water in a shallow tray. Every photographer is familiar with the inefficiency of the latter scheme, which, nevertheless, is the one generally recommended in photographic literature.

Little-Known Roads in a Well-Known Land

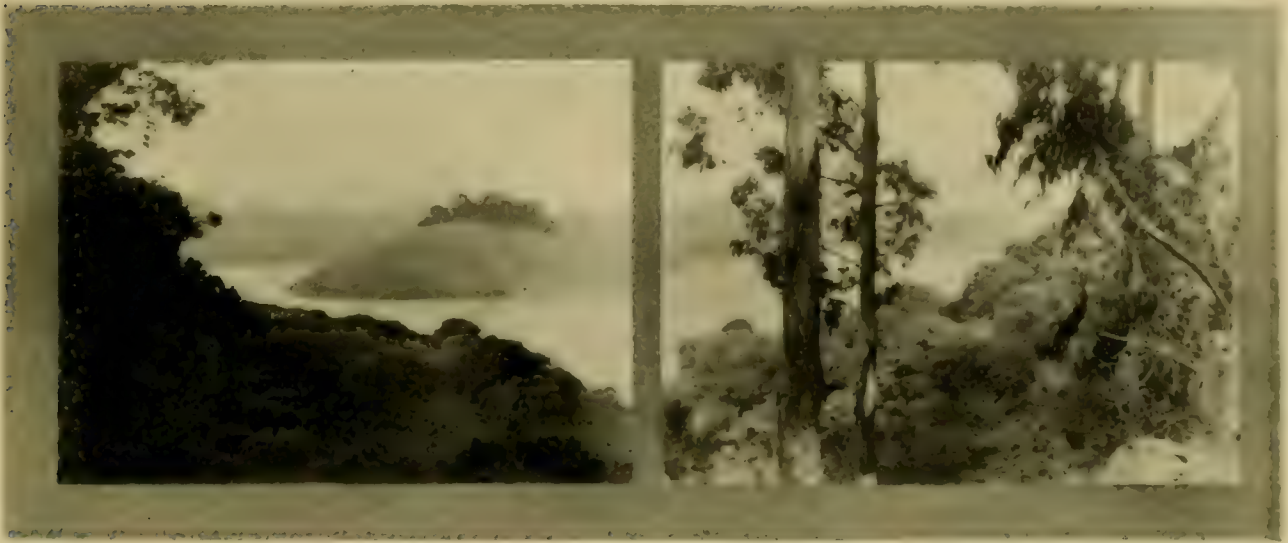
By W. ROB. WHYTE

Illustrated by the Author

"Far fields look green."

We travel far for adventure, which is oft-times very tame, and forget the really interesting incidents in our daily lives. We stay at home and mope, because we have not time for a long vacation, when, almost at our very doors, are beauties great as those we revel in at the end of a weary journey.

Strolls among the foothills from Piedmont to Lake Chabot may give us opportunities in plenty for restoring our health and delighting our eyes, without much expenditure of either time or money. In the spring there are wild flowers along the roadsides; the little streams sparkle in the sun, and the over-hanging trees, like vain maidens, seem to glory in their beauty reflected in the pools.



LAKE CHABOT FROM THE CARRIAGE DRIVE

Then, in the open, the sturdy oaks throw out their gnarled and knotted arms, defying gravitation, and the smooth, rolling hills are like mother earth baring her bosom to the soothing rays of the glowing sun. These oaks and hills strike the mind of the stranger to Californian scenery the most forcibly. There is something so peculiarly suggestive of rugged masculinity in the one and of smoothly curving femininity in the other that one is tempted



FOOTHILLS SAN LEANDRO



A VISTA—LAKE CHABOT

REDWOODS—DIAMOND'S CANYON

to deem them specially typical of the race that has grown up among them. The characteristic "lighting" of these hills is beautifully shown in the paintings of Welsh.

On the eastern slope of our foothills we first come upon that most delicately beautiful of Californian trees, the glorious redwood, the symmetry of whose growth must ever appeal to the artist's sense of form, whether in part, in group, or as a single tree. Each branch is graceful; the sun shining through upon many trunks makes a worthy study in light and shade; and a single tree is in itself a picture.

On a clear day, let us dwell for a moment on the view looking west, with Mount Tamalpais standing dark and stately against the sky; the Estuary, like a silver thread in the deep blue of the distance; the patches of rich, dark, olive-tinted blue-gums at our feet; and the bright green meadows streaked with the yellow roads. It is a scene worth climbing for, apart from the health derived from the sweet, pure air.

And then to Lake Chabot. Many an hour have I spent wandering along its beautiful banks, forgetting the worry and bustle of the city, and wondering at my solitude. A well-formed carriage road skirts the left bank, from which glimpses of the lake, at some times through and at others over the tops of the trees, form an ever-changing panorama.

If we time our return so that we leave the lake at sunset, and the heavens are kind to us—not too lavish—in the matter of clouds; well—no, I will not attempt a description. At the conclusion of our worship at the shrine of the Setting Sun, we wend our way into the shadows of the vale and take our well-earned repose.

An Elementary Consideration of the Main Principles of Stereoscopy

By MONROE ADNEY SMITH

Illustrated by the Author

For so young an art, photography has perhaps taken up more new processes, and as often relegated them to the background, as has any of its fellow crafts. Very likely this aptitude on the part of photographers for the continual investigation and trial of all that is new, is responsible for the enviable position which the "art science" has won for itself. But in this haste for fame and position photography has cast aside many branches and neglected many processes which will no doubt regain their lost places in the art. The Daguerreotype, perhaps, is the most efficient medium a photographer has at his disposal with which to portray the frailties and virtues of the human race. Yet this valuable process is but a memory. Among those processes which we have discarded with the Daguerreotype may be mentioned the plain "salted paper," the pure bromide enlargement—not the chalked-up chromo that the professional "throws in" with a dozen cabinets—and stereoscopy. The causes for their relinquishment are patent in some cases and more obscure in others; in some the expenses were too great, others were given to a critical public before their defects had been removed. The reasons are many and the results apparent. Of all these "lost arts," stereoscopy took the greatest rise into fame, and hence the greatest fall. Most of us will remember the pile of "views" and their accompanying "scope" on the parlor centertable, which were brought out to entertain and more often bore the casual visitor. Possibly your own attic may afford a collection of pictures and a dust-covered "scope" from which the "young hopeful" has extracted the prisms to use as burning glasses. But where can we find a truer portrayal of nature than through a stereoscope? Add color and it is nature itself.

Stereoscopy, odd though it may seem, antedates photography. Sir Charles Wheatstone (1802-1875), a noted English physicist and electrician, to whom we are indebted for a number of useful discoveries in the phenomena of light, sound and electricity, found that the relief which we saw in nature and which the painter has never placed on canvas was due to the fact that man has two eyes, placed so that he sees everything from two view points. Sir Charles gave this simple though remarkable discovery to the world in a paper published in the "Philosophical Transactions" of 1838, almost a year before the publication by Niepce, Daguerre, and Talbot, of what Talbot called "Photogenic Drawing." Without photography it would seem that Sir Charles might have had considerable difficulty in establishing his theory. On the contrary, however, he arranged a system of mirrors to coalesce two images which were drawn by hand, one for each eye, according to the stringent rules of architectural perspective; the view points being taken about three inches apart, which for all practical purposes is the axial distance between the human eyes. It will be seen from the above, that owing to the labor and

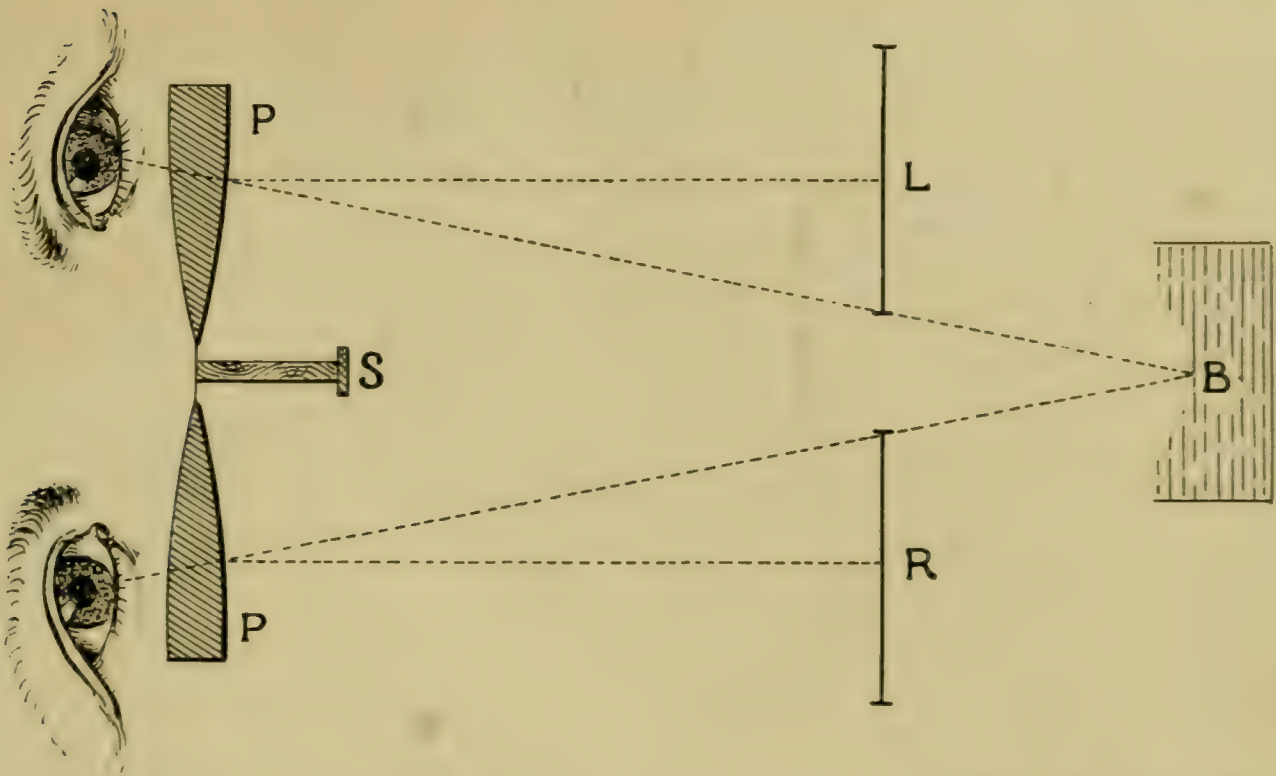
difficulty with which pictures for Wheatstone's stereoscope were obtained, his assortment of them was limited to geometrical figures and such objects as the expert draughtsman could fashion for him. In 1849 Sir David Brewster designed the instrument with which we are familiar, and with the gradual improvement in photography, stereoscopy grew in application and popularity. The advent of the dry plate, and the Anglo-Saxon love of travel gave to us stereographs from all corners of the earth, and the art reached the zenith of its popularity.

Stereoscopy should appeal to the nature lover, to the historian and above all to the photographer. For where can he find a more faithful process of reproduction for his records, where a better addition than the charm of perfect perspective which binocular vision lends to landscape and portraiture? Imagine a beautiful stage setting, in all its magnificence, the designer having cunningly simulated the perspective of nature by his ingenious arrangement of a series of drops and curtains through which the eye wanders as in nature itself. Now take this stage setting and collapse it, accordion fashion, from front to back, thus destroying its perspective, but leaving the color and form, and that which but a moment ago was a beautiful picture is now but a tawdry chromo in the gilded frame of the proscenium. How often we photographers are asked by our friends to make a picture of this or that beautiful vista. We go to the place, set up our cameras and photograph the spot which is truly beautiful to the eye. Our resulting pictures give us a flat, unattractive row of tree trunks forming a long lane in the perspective as stiff and prosaic as a picket fence. There are many pretty scenes in nature which owe their entire charm to distance and relief, and to which the single lens camera does not do justice.

We read in the photographic press of a stereoscopic revival. Stereoscopy does not need the wild enthusiasm and rush of a revival. Its quick rise in its infancy almost killed it. So valuable a process should not be buried in the hurrah and immature consideration of a cheap attempt at making it popular. A revival means cheap half-tone stereographs, gaudy with color, "comic" views which so often owe their humor (?) to obscenity, and poor mounting or transposing with its attendant eye torture to the victim who invests in such truck. Let the stereo come into its sphere of usefulness without the questionable aid of a few men who are looking only for the dollars they hope to gain from its popularity.

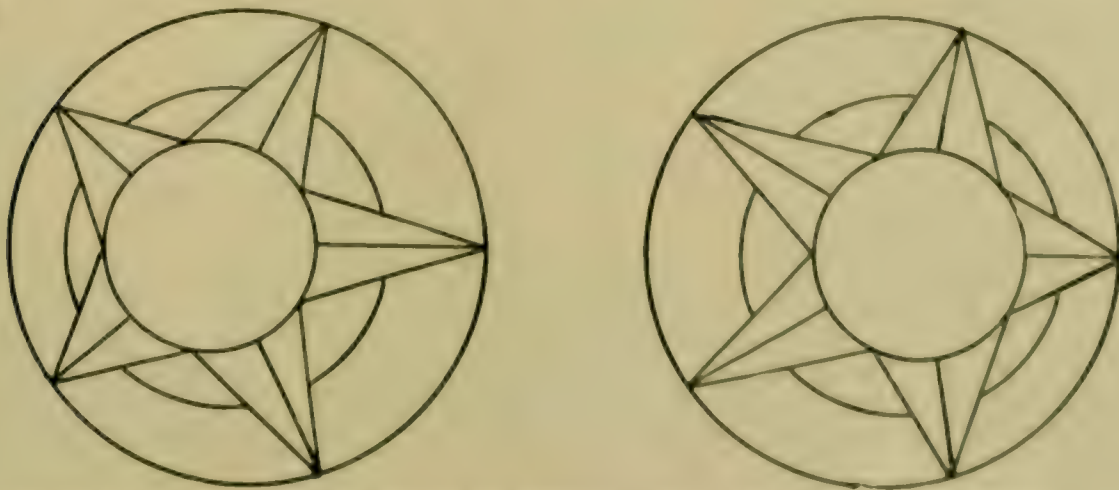
While it is hardly within the scope of this article to consider the scientific reasons for binocular vision, I believe a brief description of the phenomena is desirable. We have within us so many marvelous mechanisms, each more or less complicated, that we rarely stop to consider the marvels of any one of them. To my mind, in the phenomena of sight, the Creator gave us one of the most interesting subjects for study imaginable.

If one but stops to think of the process which takes place unconsciously when he looks at an object and beholds it in all its perfection, with due regard to color, form and solidity, he will appreciate this marvelous gift with which man is endowed. Each eye sees for itself a separate picture different in direction of line, depth of shadow, and extent from that of its fellow. Our



L and R are the left and right images of a Stereograph. Rays of light from L and R are bent by the prisms P P and the eye sees the blended images at B. S is the septum or division.

wonderful faculties blend these two images into a perfect picture, all with such ease that we are conscious of only the final picture. The stereo-camera gives us the two pictures, one for each eye; the stereoscope blends them into a counterfeit of nature which lacks color alone to make it complete. One may prove these phenomena to his own satisfaction by placing himself before a box or other rectangular object, one of whose faces is slightly out of parallel with his position. Then, by closing one eye and making a mental note of the amount of the side of the object seen by that eye, and then repeating the operation with its fellow, he will notice a marked difference in the side of the object in the images made by each individual eye. It is possible to so place an object that its side will be visible to one eye and not to the other. Therefore we "see around" an object, and it is this power which gives relief and solidity to the things we look at. It stands to reason from



Showing that the right and left pictures are entirely different View this with a Stereoscope

the foregoing, that the unfortunate with one eye or whose vision is seriously impaired in one eye can not see relief either in nature or through a stereoscope. It has also been my experience that there are people with both eyes apparently perfect who for some reason can not distinguish the difference between an ordinary photograph and a stereograph.

The Choice of Instruments

An ordinary single lens camera may be used for making stereographs, by employing some device for shifting it, so as to make two exposures with the proper separation (there are a number of such devices on the market), or by using Mr. Snow's method, which was outlined in the September number of "Camera Craft." Obviously either of these methods restricts one to the photography of inanimate objects, to say nothing of the risk of a change in the light intensity between the two exposures. However, these methods are to be recommended to all who do not wish to invest in special apparatus, and to those to whom the added facility of operation is no object. Anyone skilled in the use of carpenter's tools can readily make a very serviceable stereo-camera with needle hole "lenses" as is described in "Photo Miniature" No. 27. Best of all is a camera with two lenses, which can be opened and closed simultaneously. The market affords many such instruments at prices to suit all pocketbooks, and while one always has more confidence in good lenses and elaborate boxes, these are not essential. Most of the writer's stereographs were made with a camera costing but twelve dollars. If one wishes to spend more than the above sum, let him consider the lenses and shutter before the box. The box should have a rising and falling front, or swing back for street views and architectural subjects. Success, however, depends more on the operator than on the instrument. The country lad with a bent pin and thread will often creel more trout than the gentleman with the slender split bamboo, tempting artificial fly, and no experience.



INTERIOR CIRCULATING DEPARTMENT—CHICAGO PUBLIC LIBRARY

By J. J. JOHNSON

Stereograph printed on a single sheet of paper from a transposed glass negative.

What to Photograph and How to Photograph It

A stereo should be used in the same manner as a single lens instrument. Portraiture, landscapes, architecture, illuminations, moonlight views, sunsets,—in fact, anything,—may be photographed with it. All the rules for composition for single lens pictures apply to the stereo; a picture which is well composed will always make a good stereo. The rules for balance, and the triangular, pyramidal, Hogarth's beauty curve, and circular forms of composition will be most used. It is not absolutely essential that the stereo should always comply with the elastic rules of composition, in order to have artistic merit. For many stereographs which have no artistic merit whatsoever, when judged as single lens pictures, when viewed through a 'scope give an "aerial perspective" and "atmosphere" which is truly artistic. This effect of aerial perspective is generally accentuated by a trick of the stereographer. He should see to it that there is, in the near foreground of his picture, an object for the eye to start on, as it were, in its travels into the distance. In photographing distant views, such as panoramas from tall buildings, a portion of the building should be included, i. e., if you are on the roof, get in some of its edge, or have a man stand on the roof, within the field of your lenses, with his back to the camera. If you are exposing through a window, get the window frame in the picture. The amount of distance which may be secured in this manner will be a constant source of wonderment and pleasure.

Developing the Images

If a single lens camera is used to make the exposures, both of the exposures should be developed simultaneously, taking care to put some distinguish-



"WHITE CITY," CHICAGO. Purposely under exposed and printed on contrasty paper. The single pictures have no merit whatsoever. Note the difference when seen through a Stereoscope.

ing mark on each negative, to show which belongs to the right and which to the left eye. If film is used, develop it in the strip, preferably in a machine or tank developer. Seek for rather "plucky" though not too "contrasty" negatives, with plenty of detail. Above all, do not throw away a negative because it is apparently hopelessly over or underexposed, for the relief of the stereo counterbalances faults of exposure to a remarkable degree, and makes good pictures from poor negatives. The latitude of exposure with a stereo is, at a rough hazard, perhaps double or triple that of a single lens instrument.

Transposing and Printing the Pictures

Transposing has always been the bugaboo of the stereographer. In the negative, if it is on a single piece of glass, or celluloid, the view for the right eye is in the place of that belonging to the left, and vice versa. It is therefore necessary to reverse their positions for viewing. This transposition may be accomplished either in the negative or in the print. The former is by far the best way, for when once transposed, the negatives are always ready for printing, and there is no transposing to be done on each print. Film negatives may be easily cut apart, transposed, and fastened to a sheet of glass with lantern slide binder. This may also be done with glass negatives, but unless one is experienced in cutting glass it should not be attempted. When the negative is transposed, "die cut" paper is generally used for printing so that no trimming is necessary. Perhaps the simplest method of transposing is to clamp the negative in a specially designed frame and print each picture separately on a single sheet of paper, shifting the paper to transpose the pictures. Such a device is now being sold by the Eastman Kodak Company for its Brownie stereo. Photographers generally seem to think that great care must be taken in determining the amount of separation



A WISCONSIN TROUT STREAM. Brownie Camera Negative, transposed in Brownie Printing Frame

between the two prints of a stereograph. Theoretically they should change places exactly. James J. Johnson, one of the foremost commercial photographers of Chicago, devised a stereograph with movable images, and was thereby able to determine that the separation may vary half an inch laterally with no apparent diminution in the stereo effect. This, however, does not apply to the horizon line in the picture, which must always be the same distance from the edge in each print. I have yet to find the ideal printing medium for stereographs. The high gloss of gelatin and glossy bromide papers, while it gives beautiful detail, is apt, if viewed in a poor light, to reflect cross lights into the 'scope. The matte and semi-matte papers overcome this bad feature of the glossy paper, but do not give as good detail. Personally I like a glossy Velox or Argo print, toned slightly with uranium. The blue-black tone seems to "jar" in a stereo. Aristo Platino prints also make good stereos. Stereographs should be carefully mounted, with the similar lines of each image parallel, well toward the top of a standard size mount, regardless of the size of the print, room being left at the bottom of the mount, for a title, if desired.

Coloring the Prints

Dwight Elmendorf, the traveler and lecturer, says, as an introduction to the chapter on coloring lantern slides, in his book on slide making: "Fools step in where angels fear to tread." This sentence long dissuaded me from coloring lantern slides, yet I have never regretted the time when I ceased to be an "angel" so far as coloring slides is concerned. Coloring photographs, be they lantern slides or stereos, is not difficult, and is easily mastered by any one with an eye for color.

Paradoxically, coloring stereographs is more easily done than coloring single pictures or lantern slides. Mistakes, such as putting too deep a tint on a portion of the stereograph, may be corrected by putting less, or none, on the second image. It will be disastrous, however, to attempt to color stereos without the proper tools. Purchase a set of good transparent water colors, numbers one, three, five, seven and ten, Russian red sable brushes, and a covered china water color palette with at least ten cells. Color should never be applied to the print, undiluted from the bottle or cake. Always mix all the necessary color before commencing operations, and color each half of the stereograph separately, viewing through a 'scope as the work progresses. Great care need not be taken to keep the different colors within their particular boundaries, for if the color on some object overlaps a trifle, it will not be noticed through the 'scope. Skies, containing clouds, are very difficult to color satisfactorily, and should rarely be attempted. Where there are no clouds, a suggestion of bright color may be laid on the horizon line.

Contrary to the popular belief, stereoscopy is not more difficult than single lens photography. It has been my observation that the first stereo one makes will very likely make him a lover of the process, and a user of it in preference to single pictures for most of his work. The stereo negative is of the right size from which to make lantern slides and post cards, and is large enough to make good enlargements.

Diffusion of Focus in Skies

P. S. Greig, writing in the "Amateur Photographer," English, gives a paper on this subject illustrated by some charming reproductions of the effects obtained by his method of working. After stating that his first incentive was due to his observing the fine effect secured by an enforced prolonged exposure of a cloudy sky. He says:

"The idea then presented itself, could not the same effect be obtained in ordinary daylight landscapes, not by taking off the cap for a long time, which would be impossible, but by dividing the necessary exposure into fractions and 'letting them off,' so to speak, at varying intervals. For example: Let us assume that everything is in readiness, view chosen with a prospect of something in the way of a sky, camera in position, slide drawn, and bulb waiting to be pressed. Needless to say, a stand camera, or a hand camera on legs, is essential for our purpose. This work requires patience; no hasty pressing of buttons at the rate of a picture (?) a minute, for other people to do the rest; but you may do 'a rest' yourself between exposures if you like. Suppose the correct exposure is a quarter-second, with f-16. Dividing this into, say, twelve parts, we get twelve exposures, each of one-forty-eighth of a second. Set the indicator at one-forty-eighth, and press the bulb. So much for our first exposure. It is as well to have a piece of paper at hand in order to tick off the exposures as they are made.

"After an interval of, say, thirty seconds to a minute, let off another one-forty-eighth. The plate or lens must be covered, of course, in some way (depending on the nature of the camera), while the shutter is being set for the succeeding exposure. Then if nothing is 'doing' in the spacious firmament on high, light your pipe and have a quiet smoke for five minutes or so before letting off another one-forty-eighth. 'Continue the motion' in this way until the whole exposure (that was settled on in the first instance) has been given, i. e., twelve one-forty-eighths of a second. Then home and develop. The changes can be rung to any extent, i. e., if a pleasing looking cloud, or a gleam of light, or other atmospheric effect comes along, two, four, or six one-forty-eighths, i. e., one-twenty-fourth, one-twelfth, or one-eighth, can be given at a time, in order to specially record that feature. The number of exposures we have taken above, i. e., twelve, is, of course, quite arbitrary. Any number can be given—limited only by the patience of the operator—with any stop, provided only that the sum total of them all amounts to the correct exposure, e. g., we might give three exposures of f-16—one-twenty-fourth, f-32—one-half, f-11—one-sixth; or sixteen exposures of one-sixty-fourth with f-16; or twenty-five exposures of one-one-hundredth with f-16, all of which amounts to one-fourth second with f-16.

The interval between the exposures should not be too long if the face of the sky is changing very rapidly, or the distinction may show in the negatives. Our object is to blend the cloud forms one into the other so as to produce a final 'broad' effect of light and shade. A few preliminary trials will soon give an idea as to the duration of these intervals. Needless to say, sunsets afford the most favorable opportunities for this class of work."

The Salon Club and the Third American Salon

By LOUIS FLECKENSTEIN

The Third American Salon, under the auspices of the American Federation of Photographic Societies, now exhibiting in a number of our principal cities, has created a most favorable impression wherever shown. There are less pictures in the collection than formerly, but the average quality of the work ranks higher than heretofore. Many of the pictures are perfect gems of composition and lighting, possessing that rare charm of idealization which only a true artist knows how to impart to his work. Scarcely a picture can be singled out that, taken by itself, would not generally be considered good, a condition brought about by the manner of judging the work submitted. The preliminary jury, composed entirely of photographers, examined all of the pictures entered, setting aside those possessing good technical qualities. The final jury, composed of artists and painters, passed upon the artistic value of these latter, all others being rejected. Thus, we have an exhibition of pictures that are good in the media, good in sentiment, and, finally, what may be considered typical of pictorial photography at its best at the present day.



BIRCHES IN WINTER

By GEORGE H. SCHEER, M. D.



THE DOMINICANS

By EDWARD F. RYMAN

The collection is somewhat unique in several respects. Very large work being avoided except in the case of those contributed by Sweet Brothers, who show the only large frames in the collection. In my estimation, even these would have made a better impression in a smaller size, for a picture loses in quality when enlarged beyond a certain point. Misty effects prevailed to a large degree, and I counted no less than eighty-two, not including cloud effects of which there were several fine examples. My first impression on seeing the exhibition was that our pictorialists are either running to fog and mist effects or else the final jury were partial to this class of work. It was only after seeing the Kodak Show, a few hours later, that I could thoroughly appreciate these

numerous charming and mysterious atmospheric effects and feel their restful influence. To see the Salon and the Kodak Show side by side, as it were, showing on the one hand individuality, and on the other mechanical genius, is quite a lesson in itself. It cannot be denied that this Kodak exhibition contains pictures of great interest and beauty. The pictures vary in size, yet they are all very large, very perfect, all finished in Sepia tones, and all framed alike. It is an exhibition showing primarily the mechanical perfection of lens, film and paper—"you press the button, we do the rest." We are impressed with the wonderful possibilities of the Kodak and its usefulness in preserving records of things we see. We admire the pictures, for they are the cream



SUNSHINE IN A SHADY PLACE

By MISSES W. & G. PARRISH

of Kodak achievement; but the individuality of the "man behind the gun" is not so apparent, and the work of recognized pictorialists seems hardly different from that of a hundred others whose names are unfamiliar.

Returning to the Salon a few days later, in company with my friend, Carl Rau, the well-known pictorialist of La Crosse, Wisconsin, we examined the pictures more leisurely and took a few notes. Good, sane work characterizes the entire exhibition, and there is nothing of the sensational, freakish kind, nor of the commonplace. It is also noticeable that the characterless bromide enlargement has in many cases been superseded by papers that are



NET MENDERS ON THE DUNES KATWYK

By ELEANOR W. WILLARD

more under the control of the operator; gum bichromate, carbon and platinum, depending upon the effect most desired, and which, in any case, yield results of greater strength and beauty.

Miss Fedora E. D. Brown exhibits two dainty gum prints on Japanese tissue. "The Hill" might readily be mistaken for a charcoal sketch, and, although in low tone, values are nicely retained throughout. "Shadows on the Sand Dunes" shows an attempt to reproduce the tones of Nature, with fairly good success, and one can almost feel the cheerless aspect of a sand waste and bare poles.

D. H. Brookings, with four frames, has one of the strong pictures of



RAINY DAY

By D. H. BROOKINS

the exhibition in his "Rainy Day." It is a large panel and portrays a solitary female pluckily making her way along the street against a strong wind and drenching rain. His other pictures likewise abound in action and atmospheric quality and are equally strong in composition. R. D. Bruce exhibits five, all of about equal merit and inclining toward atmospheric effects.

John Chislett has a remarkable sunlight on snow effect in his "Snow Shadows." The textural rendering of the snow is wonderfully well done and it is one of the strong pictures of the exhibition. His "March Mists" is not so satisfactory in composition, but the misty quality is delightful. His other three are scarcely less interesting and equally good, and a better group of pure landscapes can not be found in the collection. C. F. Clarke exhibits two interesting studies. "Fun for the Boy" shows an urchin cutting a wide swath in the beautiful and ap-

parently enjoying his labors. It is strong in action with good values. "—And the day is far spent" abounds in soft, luminous evening light, with a particularly effective overcast sky. Miss Nellie Coutant is not adequately represented with the single unobtrusive little print she exhibits, although it possesses a fine poetic quality. Dwight A. Davis shows an interesting study of a meagerly clad oriental surrounded by pottery entitled, "In the Market Place." His "Study in Three Tones" displays much skill in preserving tone values under strong light. J. H. Field is represented with three, "Feeding the Goldfish" being the best. It is a delightful



THE FIRE

By DR. W. F. ZIERATH



PORTRAIT
BY SARA HOLM

child study, with beautiful lighting. "Watching the Goldfish has the same setting but shows a group surrounding the globe of goldfish. "Winter Sunshine and Mist" is a poetic rendering of a misty landscape. Louis Fleckenstein exhibits three, the best of which is "A Maid of the Frontier." Mrs. Helen P. Gatch, with three, has a decorative landscape and figure arrangement in "The Marsh," but she is more successful in "The Wrong Key"—two girls, a violinist and a pianist, at a piano. It is low in tone and possesses a dreamy, poetic quality that is like sweet strains of music.

Sara Holm reaches the limit with seven frames and a purchase prize. Her winning picture, "Decorative Portrait," is certainly a masterpiece in its delightfully soft tonal qualities, the winning expression of the beautiful model, and the perfect gum technik. Her "Portrait Head," in red gum, is another strong piece of work, of striking composition and executed with boldness and vigor. This artist possesses the faculty of producing painter-like effects with pigmented gum and her pictures are, perhaps, the least photographic in appearance of any in the Salon.

Wm. T. Knox contributes a beautiful nature study, "Where the Brook Winds Thro' the Meadow," a fine composition, with correct values and of pleasing quality. Miss Gertrude E. Man has an idealized head study—"Gratia"; a strong face, with good modeling. Misses W. and G. Parrish exhibit a single print, but it wins its way to the heart of every beholder. "Sunshine in a Shady Place" depicts a bright and winsome child seated on the lower steps of a stairway, holding a foot in either hand and looking up into your face with eyes sparkling with mischief. The lines of the composition are good and it is one of the attracting pictures of the collection. W. H. Phillips contributes seven interesting studies, most of them taken in foreign lands. "The Road from Tivoli" is the most interesting from a pictorial standpoint, although all his work bears the mark of individuality and is good in composition. C. F. Potter, Jr., shows "A Bit of Old Regla, Cuba," good in drawing, and with the human element happily introduced. Geo. T. Power exhibits a pleasing portrait, strong in its portrayal of character, and rendered in his usual vigorous style. Edward F. Ryman contributes four. "At the Pump" and "The Dominican Brothers" are both interesting studies, rendered in a pleasing gray tone that suggests light and atmosphere. Geo. H. Scheer has three original compositions, the most striking of which is "Beeches in Winter." The long, spreading branches are ghostlike in character and the peculiar tone of the print adds greatly to the grotesque effect.

R. L. Sleeth, Jr., has six frames of about equal merit. His "Landing Stage" shows interesting reflections. "Early Morning" is trimmed rather close, but the misty atmosphere is finely rendered. John W. Schuler renders an "Autumn Twilight" through tall trees. The gloom of the forest affects one with its realistic quality. Charles E. Townsend has two frames of which "In Marin County" is interesting and decorative, but deficient in atmosphere and spotty in effect. R. I. Wadhams contributes a charming seascape in "Mists of the Morning." The solitary sail is a well-placed spot and nicely balanced by the faint sunbeams on the nearby water. H. F. Walbridge exhibits a delightful child study, "Little Sunbeam," that shows

good values in white fabric in strong light. His "Young Girl Feeding Chickens" is an under-timed snapshot with unnecessary detail. Robert E. Weeks excels in winter landscapes. His "Birches" is strong and simple with a good rendering of sunlight on snow. "A Winter Stream" shows fine atmospheric qualities, as does also "The Brook Through the Woods," both interesting compositions. His "March Mist" is not so satisfactory, being flat and weak in character. Mrs. Eleanor W. Willard delights in broad, sketchy effects, done in gum-bichromate. Her "Net Menders on the Dunes" is a striking piece of work, as original in composition as it is pictorial in effect. On the same order is "The Breaking of the Storm," rather somber in tone, but realistic and impossible to overlook. "The Day's Work" is poorly spaced and contrasty in effect. Dr. Walter Winchester exhibits "The Last Glow" and "The Last Mooring," both good in composition. W. F. Zierath delights in misty effects, his "Misty Morning on the River" being a most realistic fog. "The Fire" is a splendid bit of action, with more than of passing interest. Wm. H. Zerbe, with five frames, closes the list. "The Window Seat" is a decorative window study in green carbon, and is very effective. "A Summer Day," reproduced in catalog, has an excellent quality of hazy morning light, but, unfortunately, the composition is somewhat weakened on account of the cows being headed the wrong way. "The Dawn of Day" is better and would be faultless if the strong light falling through the trees from above had been toned down a trifle. "The Sisters" is a well-composed gum print, in quiet tones. "Early Morning Mist" has a fine quality of hazy atmosphere.



SUNSET AT OCEAN BEACH

BY ALPHONSE HIRSCH

The Hawaiian Photographic Exhibit

By R. A. BUCHANAN

It is with considerable elation that the writer finds himself able to publicly record the protographically all-important and epoch-making event, and chronicle the fact that Hawaii has actually had a photographic exhibition. Like the Lepidoptera, amateur photography has three distinct stages: pupa, larva, and imago—snapshot, record, and pictorial work. This simile, I observe, is none too good, for one can hardly detect a similarity between the somewhat dormant pupa stage and the snapshot state which is anything but inactive. But



JAPANESE WOMEN

By JAMES GUILD

it is at least true that when photography begins to produce good record work she may be said to have begun, like the larva, to creep or crawl. After this, it is generally the case that she envelops herself in a cocoon covering of real study and meditation; coming forth some fine day and taking wing, "a thing of beauty and a joy forever." If you would know the state of Hawaiian amateur photography, I am constrained to admit that she is evidently scratching industriously on her cocoon covering. We cherish the audacious hope that, in the not distant future, we shall produce pictorial wings with power enough to cross the Pacific, and beauty enough to make some Solon lolling in the judgment seat of art, sit up and take notice. Should the editor of "Camera Craft" think there is danger of my figure of speech becoming a world classic, he is hereby granted permission to have it translated into Esperanto, for my linguistic ability is still in the pupa stage, and my knowledge of Esperanto, is like tomorrow's egg: "aint laid yet."

We have no camera club in Hawaii; just why it would be difficult to say, unless it be that inevitable tropic inertia. The exhibit was planned and con-



CURIOSITY AND SUSPICION By F. A. BUCHANAN

summed by the Hawaii Promotion Committee, and to the committee is due the thanks of amateur photographers throughout the islands. We stood greatly in need of such an opportunity, and it is to be hoped that the getting together of the exhibit may result in a good live camera club.

The exhibit was in two divisions: Division A consisting of pictures, 4x5 and under; Division B of pictures larger than 4x5. In each division were the following classes: Landscape, marine, industrial, Oriental subjects, Hawaiian subjects, and "Events of Interest." The rules stipulated that the exhibitor must have "chosen the subject and made the exposure," and it is much to be regretted that many of the exhibitors did this and nothing more.

Others had done their own developing, and only a very small proportion exhibited entirely original work. The prints here reproduced are from the work of the latter, for I take it, that the readers of "Camera Craft" are not much interested in amateur photography, one-half or two-thirds of which has been done by professionals. One who has attained a fair mastery of development, but has not mastered the work of printing, can call himself more than half a photographer, if indeed so much as that. If Stieglitz or Steichen should allow me the use of their best negatives I would guarantee to produce



By F. A. BUCHANAN

straight prints from them, that "Camera Craft" would be ashamed to reproduce.

There was work in the exhibit which showed serious study and a wide knowledge of the principles of art, and especially of composition. Work also which exhibited creditable skill in the technique of photography. There was also some atrocious work exhibited. There has, perhaps, never been a more wholesome piece of advice given to amateur photographers than: "Trim, trim, trim." I have rapher who will over-pure freakishness. mind a picture by Ger- which she has bisected her child subjects, and picture "Happy Days" of thing until we are as Kasebeir. But most of danger of doing it, ger of not going far tion. In the Hawaiian ence that the trimmer with telling effect. One trate, there were others have forgotten the I can speak the more class, Division A, was anese child occupying ground of the picture. little fault was to be the figure appropriat- the print, was an un- other material. To the third of the space was or beer bottle boxes, bottom of the picture, of falling over. This pectable enough pic- it been placed in the other third on the late, this picture was



THE HARBOR

By F. BECHERT

class, and as the writer was not a competitor in this class, he can comment without being accused of jealousy. Such a picture would seem to indicate that its author had never studied the first principles of composition. "Trim, trim, trim,." One cannot well judge the composition in the small finder of a hand camera, therefore, we must sometimes overcome our objections to paying for a 4x5 film and then cutting down the resultant print one-third or one-half. Such objection may show a frugal mind, but surely not an artistic temperament.

I need not say much about the work reproduced herewith, as it is able to speak for itself. Of the exhibitors, Mr. Guild exhibited a considerable num-

yet to see the photog- trim, except it be for There comes to my trude Kasebier, in or beheaded all five of has then labeled her We cannot do that sort famous as Gertrude us are in no immediate rather are we in dan- enough in that direc- exhibit there was evi- might have been used picture will do to illus- quite as bad, and as I name of the exhibitor, freely. In the Oriental a photograph of a Jap- the exact middle fore- With the figure itself found. To the right of ing at least one-third of sightly sack of sand or left occupying another a column of soda water extending from top to and in imminent danger would have been a res- ture had two-thirds of waste basket and the mount. Strange to re- awarded the prize in its

ber of pictures, most of which were good and none bad. He carried off the honors in two of the classes, doing as well as any exhibitor, of original work. He has made rapid strides in the past year, and I think will make greater progress in the future. Dr. Sinclair exhibited about a dozen pictures, a very even and creditable lot. His work showed good selection, and a knowledge of what to get in and what to leave out. There was not a poor composition in the lot. There is no "chance" about his work. The eye and the hand had combined to make them just what they were. One or two of his subjects lacked character, but he has forgotten his cocoon house, has taken to himself a pair of pictorial wings, which are carrying him among the beauty spots of nature.

Mr. Bechert exhibited five pictures. His work displayed more variety than did that of Dr. Sinclair. He had gone out in the open more. Dr. Sin-



THE POOL.
1st. prize, class A.

By F. A. BUCHANAN

clair wandered much among trees, while Mr. Bechert had sat by the sea. He gave us a glimpse of inlet with a distant mountain range, another of stately hills, a sweeping curve of roadway, a beautiful piece of composition. But his best work was the harbor scene here reproduced, perhaps the best picture in the exhibition.

It is only fair to say that a good deal of the work of those who had not done their own printing showed excellent selection, and it made one regret that these had not done their own work all the way through. The writer has sent a number of his prints to "Camera Craft," and has no knowledge of what will be reproduced. He has in this way evaded the responsibility of criticising his own work.

Regular Monthly Meeting, P. A. of C.

A called meeting of the Photographers' Association of California was held Monday evening, April 29, 1907, at 1003 Fulton Street, San Francisco, President McCullagh in the chair.

Roll call of officers showed the following present: President, E. J. McCullagh, Vice-President George H. Knight, Secretary Fayette J. Clute, Sergeant-at-Arms C. J. Wall, and Director Joseph Mullender.

Minutes of the last meeting, held January 21, were read and approved.

Communications from Treasurer Paul Lotz were read. Mr. Lotz wrote from New York and said that he would be in San Francisco at no very distant day, prepared to resume business. He wrote very enthusiastically concerning the good accomplished by the Associations of the East and sent words of encouragement. Vice-President C. F. Kohler of Los Angeles thanked the Association for the honor bestowed and also wished it every success. Communications were ordered placed on file.

On motion of Jacob Fowzer, seconded and carried, the regular monthly meetings of the Association will be held at Master Painters' Hall, the first Monday of each month, beginning June 3 next. On motion of G. Moulin, seconded and carried, the payment of dues will be resumed at the stated meeting to be held July 6. No further regular business coming up, the President declared a recess of ten minutes.

The meeting being again called to order, Charles J. Wall gave the members a very interesting paper covering the relationship which should exist between the employee and employer, placing particular stress upon the advantage of mutual interest and co-operation. L. F. Terkelson next read a paper, "A Message to Garcia." Mr. McCurry also read a paper which was received with much interest. Other members gave their views on various topics in response to requests from President McCullagh. The meeting then adjourned.

FAYETTE J. CLUTE, Secretary.

Decorative Art

It is characteristic of decorative art that it depends almost as much upon the critical as upon the creative faculty of the artist. More than any other art it depends upon taste; and by that test it stands or falls. It is taste that determines—what is it that it does not determine in decoration? It settles in the first place whether there should be decoration at all, how much of it, of what kind, where it shall be introduced, and how executed. It prescribes what is wanted, what is admissible, and what is becoming. Not one of these questions can be solved without reference to it. Every work of applied art is a problem, and the most important factor in its solution is taste.

LEWIS FOREMAN DAY.

CAMERA CRAFT

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FAYETTE J. CLUTE, Editor and Proprietor

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E. S. Curtis and His Great Work

Mr. Curtis is at present in New York, but will start on his summer trip about June 1st, visiting the Siouan tribes of North and South Dakota and their branches in Montana, together with the Omaha and Winnebago tribes of North Nebraska. His lecture trip through the East has been most successful, and in addition to the enormous amount of work which they have involved, he has in addition completed all arrangements for the early publication of the first two volumes of his stupendous work, "The Indians of North America." This will no doubt be the most ambitious and pretentious work undertaken since Audubon's effort. The complete set will consist of twenty volumes, and a like number of portfolios, each volume to contain seventy-five small, and each portfolio thirty-six large photogravures. The "foreword" of the work will be written by President Roosevelt. It will require from five to seven years to complete the series. The first volume will treat of the Navajos and Apaches, and the second of the Indians of Southwest Arizona, such as those of Yuman stock and other small tribes. The work is to be sold by subscription only, the edition limited to two hundred and fifty sets, and the price is \$3,000 a set. A large number of sets have already been subscribed for, enough and more to warrant the success of the undertaking. Mr. Curtis' wide circle of friends and well-wishers can all feel his great success is well merited and justly bestowed.

The Photographers' Association of the Pacific Northwest

Vancouver, Wash., May 1, 1907.

To the Photographers of the Pacific Northwest:

The Seventh Annual Convention of the P. A. of P. N. W. will be held at Seattle, September 3rd to 6th inclusive. The reputation of the Queen City of the Northwest insures us a more than hearty welcome, and the "Seattle spirit" guarantees through its contagiousness an abundance of interest and enthusiasm. Nevertheless, a large attendance depends upon the individual photographer, and every member of the craft in this territory should make up his mind to be present and make himself a member of the Association. Put yourself in communication with the Secretary, O. W. Pautzke, Ellensburg, Washington, and he will advise you of what is being done as arrangements progress. Do this; send him your name, even if you are not yet certain

that it will be possible for you to attend. We want every professional photographer in the Northwest on our mailing list.

The advantages of conventions and the benefits to be derived from attendance thereon, need no words of commendation. The man who visits a convention for the first time has only regrets that he has not done so in previous years. He will be with us the following year if it is possible for him to do so. Our convention gatherings grow larger with each recurring year. They grow better as experience and added attendance is secured. The officers of the coming Seattle Convention will spare no efforts to make this, our seventh, show a more marked improvement over the last than has any previous convention over its predecessor. The educational and business features will be made particularly attractive, wide and varied in scope. Seattle is not a lonesome town, and goodfellowship and fraternalism will mark the gathering. You will return to your work with renewed enthusiasm and greatly augmented prospects of larger success. Let us have your name and address early, and prepare to be with us when September comes around.

Fraternally,

W. G. EMERY, Pres. P. A. of P. N. W.

Mr. Goerz on the Coast

Otto Goerz, head of the C. P. Goerz American Optical Company of New York is spending a few weeks in San Francisco where he has made a host of friends by his charming personality and business-like methods. He is making his headquarters while here with Telgmann & Torka, Pacific Coast Agents for the firm.

Mr. Hicks in New Fields

We are in receipt of a communication from the Artura Photo Paper Company, Columbus, Ohio, containing expressions of regret at the resignation of its Pacific Coast Representative, L. D. Hicks, who left the company to go into another field. Mr. Hicks enlisted many supporters under the Artura flag and the company will undoubtedly miss him.

Mr. Rose in San Francisco

The ever popular J. K. Rose, Coast representative of the Hammer Dry Plate Company, paid this office a visit recently. He reports a most gratifying demand for the productions of the Hammer Factory. He explained during the conversation, that the size of his territory was such that too frequent visits were prevented, this fact no doubt accounting for the hearty welcome he so uniformly received.

Goods Sent Postpaid

Through an error, the advertisement of the Sunset Photo Supply Co., in our March issue suggested that all the goods mentioned would be sent postpaid, while the intention was to prepay charges only on photographic paper. It is so obviously impossible to expect a dealer to prepay postage, let us say on a graduate weighing several ounces and sold for ten cents that our mistake could hardly have caused any inconvenience or misunderstanding, but we make this explanation in order that the Sunset Photo Supply Company may not be blamed for our mistake.

In Professional Fields

Our Employment Bureau

There is a decided demand for all kinds of photographic employees here on the Pacific Coast. We have urgent requests from a number of proprietors for printers, retouchers, view photographers, finishers and the like. We would ask all such who are desirous of coming to this part of the country to write us plainly and fully as to their qualifications and desires to the end that we may put them in touch with employers desiring the services of workmen in the several branches. Operators are less in demand and unsatisfactory service is simply a temptation to the employer to engage Japanese help and train them to the work. We will gladly do all in our power to assist any competent workers to secure good positions in this territory and there are good openings constantly available for the right parties.

King County Photographers' Association

Early in February the photographers in Seattle and vicinity were thrown from convulsions of excitement by the receipt of postal cards coming from some unknown source calling for a meeting to be held at the rooms of the Chamber of Commerce, Seattle. Important measures were to be discussed, and the necessity of standing together was strongly urged. Besides, it bore the mystic design of a switch with a hand on the lever ready to throw the train on the main line or sidetrack. On the cuff was the word "Unity." More than fifty persons answered the call. Percy King, as temporary chairman, called the meeting to order and immediately resigned, as he was about to leave the city, in favor of H. B. Wills. The fears of unionizing motives and boycotts were soon dispelled, the best of good nature and good will prevailed and the idea elucidated of forming a permanent organization for the good of the craft, entertainment, amusement and the promotion of good fellowship, as the ultimate objects to be attained. The one important business intended to be kept in the immediate foreground was the entertainment of the visiting photographers at the convention of the P. A. of P. N. W.

A Committee on Constitution and By-laws being appointed, the meeting was adjourned to meet at the studio of Mr. Hamilton on the first Tuesday in March. At this meeting the Constitution submitted by the committee was adopted and permanent organization was effected, the name "King County Photographers' Association" being adopted. Election of officers resulted in the following being chosen by acclamation: H. B. Wills, President; A. F. Muhr, Vice President; J. E. Ralston, Secretary and Treasurer. During recess an anonymous paper was read which proved so funny that the best of humor prevailed. The author's name, Mr. Surry, was finally disclosed, and he received many congratulations on his happy effort.

The second regular meeting took place at the Curtis Studio. The Aristo School was holding its session in Seattle at the time and many visiting photographers were in attendance. Besides, the officers of the P. A. of P. N. W. were there to arrange the date and other formalities for the convention. These and their ladies were cordially invited and the capacity of the Studio was taxed to the utmost. Mr. Muhr showed a number of Mr. Curtis' Indian lantern slides to give an idea of the vastness of the undertaking of that

prominent worker, the territory already covered, and the work still to be done. After a talk by Mr. Partzke, Secretary of the P. A. of P. N. W., and other contributions to the entertainment of the guests, the meeting adjourned.

The May meeting, at the Braas Studio, opened somewhat cloudy, as Mr. Wills felt obliged to resign. Upon Mr. Muhr assuming the duties of the chair, Mr. Ruffner was elected Vice President. Mr. Asabel Curtis gave an interesting talk on his experiences in mountain climbing, his slides showing scenes of his ascents of Mt. Rainier, Mt. Baker and Mt. Shuksan. After this there was some music—a trio by Mr. Little and friends; following he played a solo which was well received. Before the next meeting committees will be appointed, and the King County Photographic Society will be in good running order.

Notes

The Frank Beck studio in Fresno is now known as Beck & Berry.

Mr. Hemminger is now printing for James Dorman, Bakersfield.

T. S. Newby, stock dealer of Pomona, has sold out to the C. H. Short Music Company of the same city.

A. B. Gilbert, who attended the Aristo School in San Francisco in March, has been laid up with an attack of the grippe, but is now fully recovered and attending to his studio in Watsonville.

Austin T. Park, of Redlands, has sold his photographic stock to the Sun Drug Company of the same city.

George R. Butler has been succeeded by H. G. Trout in the Salinas studio. Mr. Trout has been with Mr. Butler for a number of years.

J. C. S. Aune, the popular photographer of Portland, is expected to return from his six months' trip in Europe about the first of June.

The Elete Studio, of Butte, Montana, is now enjoying the added popularity always co-existent with the presence of Harry Coombs, who was until recently located in Tacoma.

The Clarence Winters Studio, at Eugene, Oregon, has been taken by Mrs. Tolman, of Vancouver, Washington.

Miss Ihrig has removed from her old location on E Street, Tacoma, to a handsome new studio at 940 Pacific Avenue. Her new studio is a model of convenience and quiet elegance.

George Peters, formerly with Bushnell, of San Francisco, is now with Libby, of Spokane, Washington. In a recent letter he extends best wishes to his many friends in this city.

Hugh Sproule, formerly with Sarony, and with Marceau in New York, is in charge of the new Bushnell Studio on Van Ness Avenue, San Francisco. He reports himself as much pleased with his new location and the advantages of San Francisco.

William York is opening a studio at Colton, California. Mr. York is a new man in this State, but high quality of his work will insure him success.

Percy King, the inventor of the light controller bearing his name, removed from Seattle, Washington, some three months ago, going to Portland. Our last report was to the effect that he was located in Brooklyn, New York. He made a large circle of friends while in Los Angeles and, in fact, is sure to be popular, and deservedly so, wherever he may locate.

A New Carbon Paper

W. Zschokke publishes in the "Photographische Mittheilungen" a description and results of tests of a filter made of a new kind of yellow glass which, while possessing perfect absorption for the yellow rays, is three times as rapid as the yellow glass in present use. It is to be placed on the market by the C. P. Goerz optical firm.

Rapid Yellow Light Filters

A form of carbon printing that gives a visible image (observed by looking through the print), and does not require transfer, and is therefore not reversed, is on the English market under the name of "Satino Carbon Paper." It is sold by James Minn & Co., 11 Queen Victoria Street, London, and seems worth looking into.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Mechanical Treatment of Bromides

Arthur Payne has an article on this subject in "Photography," from which I abstract the following as being certainly novel: "Another ingenious method of hiding all traces of handwork upon the surface of the print and at the same time conferring a novel texture to the paper came under my notice some time ago, but I have not yet seen a description as to how it was produced. It consists of roughening the surface of the finished and mounted print by means of glass paper or wire gauze so that a regular or irregular grain is imparted to the print. Naturally such treatment is only suitable for bold subjects, but upon these it produces a delightfully soft appearance, the beauty of which cannot be adequately conveyed in a written description. Some of the charm is possibly the result of the image being broken up by this treatment, thus giving an effect quite different from and superior to the use of rough-surfaced papers. The treatment is so simple that any one may readily try it, and I commend it to the attention of all bromide printers.

"All that is necessary to produce this effect is to place a sheet of rough glass paper or a piece of wire gauze in contact with the face of the finished and mounted print and then to pass them through a rolling press or between the rollers of a domestic mangle. This produces a pattern upon the face of the print, and a variety of patterns may be obtained according to the requirements of the moment by selecting suitable embossing material. Personally, I prefer the irregular grain produced by the action of glass paper. The kind of glass paper which I use is that known as Oakey's No. 3, and in order to prevent the grains of glass with which the paper is coated from sticking

to the print, it is necessary to see that it is quite dry before it is passed through the press. It will be found necessary to pass the glass paper and print through the press many times before an evenly-embossed effect is produced upon the print and any pieces of glass which may adhere to the surface of the print are removed by brushing them off with a duster. It may be advisable to mention that the glass paper and print must not be repeatedly passed through the press without altering the relative positions of the two between each application of pressure, otherwise a few deep markings will be produced and not an even-roughened surface such as is required."

Deterioration of Sodium Sulphite

The "British Journal of Photography" has recently been interesting itself in the question as to when the sulphite should be placed in the two solution developers, and has maintained the view that sodium sulphite mixed with an alkaline carbonate undergoes rapid decomposition. This has led to discussion and experiments, and, in a recent issue, the matter is summed up as follows:

"As yet the only points that have been determined are these:—(a) Reactions take place between the carbonate and sulphite which vary in their results according to the amount of carbonate present. (b) With an excess of carbonate the sulphite is apt to deteriorate with extraordinary rapidity in particular conditions that we have not yet been able to determine, and therefore cannot guard against. (c) If only a small amount of carbonate is present it changes into bicarbonate as the sulphite deteriorates, so that an accelerating agent is replaced by a feeble restrainer. (d) If an excess of carbonate is added to the sulphite caustic soda is ultimately found, which

is a very likely cause of stain in the pyro-soda developer. These four facts seem to confirm our original observations founded on simple development tests, and they certainly tend to show that sulphite and carbonate are best kept separate. Details of further tests will be published later, together with the method of analysis, which has some points of interest."

Failures and Remedies in Carbon Printing

The following table is given in "Das Bild," and whilst it is specially drawn up for the tissues and stripping films as sold by the Rotary Photographic Company, it is obvious in many cases it will also apply to ordinary carbon work. The letters T and F refer, the former to tissue on the ordinary paper support, and the latter to the stripping films. The large pages of the "British Journal of Photography," from which we copy the table, permit a tabulated form. We will interpose a dash (—) between each "Failure," "Cause," and "Remedy," giving a paragraph to each group.

No. 1. The pigmented gelatine dissolves during sensitising, especially when touched with the fingers (T. F.).—The sensitising bath is too warm.—The sensitiser should not be warmer than 60 to 65 degrees Fahr. It should be placed in a bottle and stood for a long time in running water or some pieces of ice should be added.

No. 2. The gelatine runs in drying (T. F.).—The drying room is too warm.—The room should be kept cooler or ammonium bichromate used with the addition of twenty-five to fifty per cent of alcohol. See also No. 5.

No. 3. The gelatine strips during drying (F.).—The drying room is too warm and there is too much ventilation. Very dry weather.—The room should be damped by hanging up wet cloths, or be sprayed with water, five per cent. of glycerine should be added to the sensitiser.

No. 4. The film shows reticulation during development and floats off the support, or it only adheres in the deepest shadows, and the half-tones dissolve (F.).—(a) The printed image is not laterally reversed on the gelatine. The film was placed with the gelatine in contact with the negative. (b) The print is reversed. Too short exposure.—(a) The celluloid must be in con-

tact with the negative. (b) Longer printing.

No. 5. The gelatine will not dissolve, even in the unexposed parts, in warm water (T. F.).—Too long drying in damp air. The fumes of burnt gas or paraffine in the drying room. Fumes from an acid fixing bath. Old sensitiser.—Better ventilation or warming of the drying room. The hygrometer should not show above seventy degrees. The drying room should be fitted with fans. Use an alcoholic solution of ammonium bichromate fifteen grammes; water, one hundred cubic centimeters. To every twenty-five cubic centimeters of this stock solution add twenty-five cubic centimeters of alcohol. This should be applied with a brush. Duration of drying, one and one-half to two hours. After use the sensitiser should be filtered. It should be frequently made fresh.

No. 6. During development the highest lights alone dissolve (T. F.).—Over exposure.—Add to the developing water some ammonia; if details do not then show, shorter exposure is the only remedy.

No. 7. The gelatine will not dissolve at all in hot water, and only shows relief (F.).—Complete over-exposure.—As for No. 6. If this is no use, print one degree less on the actinometer.

No. 8. As No. 7, it also shows reticulation (F.).—As No. 7. The reticulation is caused by too hot water.—As for No. 7.

No. 9. In the finest half-tones, transparent, round spots of different sizes and not coherent show, whilst in the shadows they are less transparent (F.).—Crystallisation of the bichromate on the film through the use of too strong a sensitiser. Too long sensitising, insufficient blotting off of the same.—Use weaker baths. After sensitising blot off excess of solution with clean blotting paper. One minute's sensitising is enough.

No. 10. The prints show dark places or streaks (T. F.).—Excess of sensitiser was not blotted off and parts are thus more sensitive.—Excess of sensitiser should be carefully blotted or wiped off.

No. 11. Development is difficult and irregular (F.).—The excess of chromate not washed out before development.—The prints should be soaked for about fifteen minutes, and the water changed twice.

No. 12. The prints appear hard. See also No. 14 (T. F.).—Sensitiser too weak

or too much ammonia added.—For soft negatives use a one to three per cent. sensitiser with as much ammonia as will turn it straw colored. For harsh negatives a four to five per cent. should be used without ammonia.

No. 13. The print is flat (T. F.).—Too strong sensitiser.—Remedy as for No. 12.

No. 14. The half-tones are eaten away, otherwise the print appears fairly good (T. F.).—Developing water too hot, or too hot water was added. Too violent rocking during development.—The water should not exceed eighty-six to ninety-seven degrees Fahrenheit. Too violent shaking should be avoided. A stronger sensitiser should be used.

No. 15. The developed print shows slight reticulation (T. F.).—Too hot water in developing.—The temperature should not exceed ninety-seven degrees Fahrenheit.

No. 16. The celluloid will not easily strip from the picture (F.).—The print is not dry enough.—The remedy is obvious.

No. 18. The transferred print is covered with shining round spots when the support is a rough paper (T. F.).—The transfer paper was not soaked long enough, or was not sufficiently squeegeed after transfer. — Rough transfer paper should be soaked from one-half to two hours in water, and just before use dipped into water at one hundred and thirteen degrees Fahrenheit. Stronger pressure on a soft support in a copying press.

No. 19. The outlines of the transferred prints are covered with innumerable shining points (T. F.).—The developing water was too cold and too full of air. The transfer paper was insufficiently soaked.—Use greater pressure and warmer soaking water.

No. 20. The outlines of the individual prints do not exactly coincide in combination or three-color printing (F.).—One or other of the images was developed in too hot water so that one has expanded more than the other.—The constituent prints should be developed simultaneously or water used at the same temperature. The paper bearing the transferred print should be soaked longer.

No. 21. The cemented prints do not adhere to one another when the print is dry (F.).—The prints were not thoroughly cleansed from rubber. In transferring the

gelatine was squeezed out during squeegeeing.—The prints should be thoroughly cleaned with benzole. After the gelatine solution has been poured over the print, the softened print should be carefully superimposed, and any air bubbles removed by gentle pressure with the fingers.

The Graphoscope

The subject of stereoscopy calls to mind an article in the "British Journal of Photography" in which the impression of relief caused by the graphoscope is explained. It is stated to depend, first, on the fact that the magnified image brings the eye much nearer to, or actually at, the true view point (that is, the eye should be the same distance from the picture as the focal length of the lens where-with it was taken); secondly, the two eyes looking through a large uncorrected (such is a graphoscope) see an image rendered convex by special aberration; thirdly, the two eyes looking at a single object through a large lens view it from different centers. The writer says:

"When the relief effect is most obvious through the graphoscope, the simple experiment of opening and closing the eyes alternately will show that the right eye is seeing the subject through the right half of the lens and the left eye through the left half. Each eye is therefore observing through one of a pair of prisms placed base to base, and as a necessary consequence of the spherical aberration that exists each eye sees a differently proportioned picture. This fact will not be apparent in a complex photograph, but it is easily noticeable in a simple diagram consisting of a circle with a series of radii drawn from the center. This may be looked upon as a plan of a cone. If examined with both eyes through the graphoscope lens the center will appear to rise up above the plane of the circle, and a cone will be suggested. The suggestion is imperfect, owing to the absence of any perspective in the form of shading, but a conical effect is given. Examine this figure with one eye through the right half of the lens, and then move the lens laterally so as to obtain a view through the left half. Two obviously different effects are obtained. In both cases the circle becomes approximately oval, but through the right half of the

lens the point in which all the radii meet is well to the left of the center of the oval, while through the left half the same point is well to the right of the center. Leaving the matter of distortion out of consideration, it is evident that these displacements of the center point are very similar to the effects that would exist in a pair of stereoscopic views of an actual cone. The center point is, in fact, displaced in each view in the same direction as the apex of a cone would be decentered in each of a pair of stereoscopic views; hence the combination of the two views seen through the two halves of the graphoscope gives very much the same effect of relief as that obtained in a stereoscope from two correct views. The result is not accurate, and though the relief obtained is due to the same causes that produce relief in the stereoscope, it is not stereoscopically true. It is, nevertheless, remarkably effective when the subject is a good photograph and the relief of a stereoscopic character is aided by good perspective."

Green Glass Plates for Halation

The following letter, with a copy of a photograph of a dining table placed near a large window, is published by "Photography." The photograph is devoid of any trace of halation, though of a subject where such a result seems almost impossible. The letter tells its own story:

"Tors Hotel, Lynmouth, March 22, 1907.

Dear Sirs:—Some little time ago I wrote to my plate makers, Messrs. Wratten & Wainwright, of Croyden, and asked them if they would coat me some plates on green glass, as I was very strongly of opinion that plates of that color would be absolutely non-halation ones, as I considered that the light rays could not possibly pass through green glass at all during exposure, and therefore could not possibly be reflected back and cause halation. Messrs. Wratten & Wainwright, with their usual courtesy, said they would coat me some green-glass plates, but that they could not agree with my idea about their stopping halation. The plates arrived, and I exposed one on my dining room on the first bright day; and I don't mean an ordinary bright day, but one when the sun was shining very brightly on everything. I exposed right at the window, giving six

seconds with f-22. No backed plate would have stood this very severe test, but, as you will see, my green plate did, for there is not a trace of halation on it. I sent a print from it to my plate makers, and they say: 'Thanks for the print to hand. It certainly is a most successful result—absolutely halation-free—and quite proves your contention as to value of green glass. We congratulate you on the excellence of the print, which we are taking the liberty of retaining. Yours faithfully (signed), Wratten & Wainwright, Ltd.' If you think the above will be of any use to your readers, please make use of it.

Yours truly,

W. RIDDELL."

Chicago Camera Club for May

May 2d. Set of Interchange Slides from Orange Camera Club of Orange, N. J. Also Test Night for members' slides.

May 9th. Special set of "Kodak Slides" from the Eastman Company. These are slides made from Kodak negatives, and should be good. The Club desires to extend an invitation to the ladies of our members to attend either or both of these meetings. Being the first ladies' nights we have had for some time, we will be prepared for and expect a large attendance.

Members will please notify the Secretary of any change of address, in order that our notices and the like will be so directed as to reach their destinations at the earliest possible moment. Notices of meetings of May 16th, 30th and 23rd will be sent later.

CLARENCE B. HALE, Secretary.

Plate Backing

A correspondent in Michigan wishes to know if there is a formula for a backing that does not contain glycerine to draw moisture and spoil his holders, not to mention taking too long to dry; one that is not sticky and inclined to stain, and one that can be easily removed. Here is one that I think will fill his wants. Add a half ounce of scraped Castile soap to ten ounces of alcohol. Stir it well and let stand for eight or ten days. Then filter and add fifty grains each of erythrosin and aurine. This can be applied with a sponge or brush, dries instantly, and a touch with a damp rag removes it entirely.

The Amateur and His Troubles

By FAYETTE J. CLUTE

Prints in Optical Contact

A correspondent in Illinois desires to mount some prints in optical contact with glass. A solution of gelatine should be prepared by soaking a couple of ounces of sheet gelatine in cold water until no more is taken up. Then dissolve in seven ounces of boiling water. Let this solution cool down to about 110 degrees, immerse the print and then squeegee the print face down on a piece of clean glass. Any excess of the solution that may adhere to the face of the glass or the edge of the print may be removed with a damp cloth or sponge.

About Platinum Prints

A correspondent in Oregon asks the reason for a few mishaps that have followed his first experiments with this excellent printing process. The rotting of the paper is due to his allowing the acid used in fixing the prints to remain in the paper. This fixing should be followed by a thorough washing. Acid allowed to remain will cause the paper to lose its structure and if only a slight amount is allowed to remain the paper will turn yellow in the course of time. Flat negatives should be printed under a sheet of blue glass, and care should be taken that the paper is fresh and dry and the developer not too warm. If a contrasty negative is used, too cold a developing solution will result in a hard print lacking in half tones. Old or damp paper gives flat, muddy-looking prints, looking much as if the paper was fogged.

Platinum Toning Bath

A reader in this State complains that his platinum toning bath works too slowly. Possibly the right kind of phosphoric acid is not being used. Again, the water being used may be at fault. If the water is very alkaline the platinum will be precipitated. If this is the cause of the

trouble it will be well to put enough phosphoric acid in the last wash water before the platinum bath, to turn blue litmus paper red. Place the prints directly from this last wash water into the platinum bath. In making up the platinum bath with the same character of water it would be well to first see that it was made acid in the same way before adding the platinum solution.

Ground Glass Substitute

A correspondent in Arizona asks for the formula that has appeared so often in the annuals and the like, telling how to make a ground-glass substitute. It reads as follows:

Gum sandarac	100 grains
Gum mastic	25 grains
Ether	2 $\frac{1}{2}$ ounces
Benzole	1 $\frac{1}{4}$ ounces

The two gums are first dissolved in the ether and then the benzole added. The transparency of the result is governed by the amount of benzole, the benzole being increased should the solution prove too transparent. At the same time one should avoid adding too much or the gums will be precipitated. The solution is flowed over the clean glass and allowed to dry.

Improving Flat Negatives

There are two kinds of flat negatives resulting from over-exposure. In one the high lights are of the right density but the shadows are veiled or fogged. In the other there is less fog in the shadows, but the high lights lack density enough to give the desired contrast. In the first case the negative should be subjected to a strong Farmer's reducer, well washed and then intensified by the copper bromide and silver nitrate process. If the first operation does not suffice, repeat. The reducer is made by adding two ounces of a ten per cent. solution of potassium ferricyanide to eight ounces of a 25 per cent.

solution of hypo. The negative must be removed from the reducer before the desired action is completed, as it continues to reduce after being placed to wash. For negatives of the second kind the dry negative is first bleached in a solution composed of one hundred and ninety-six grains of copper sulphate to the ounce of hot water; a like solution of potassium bromide; the two mixed, allowed to cool, and then the green solution poured off for use. After bleaching, the negative is held under a flowing tap for exactly three minutes, and then blackened in a five to ten per cent. solution of silver nitrate. A short washing should follow, and then the Farmer's reducer applied, but this time adding only one-half ounce of the ferricyanide solution to ten of the hypo. Reduce until the high lights show proper density and then wash well. This last form of the Farmer's reducer will act much slower than the one used on the former class of negatives as mentioned above, and as the last process gives the negatives a warm yellowish color they will print with considerable more contrast than one might expect.

Negative from Negative Direct

A correspondent in Maryland writes to ask concerning a process which he read some years ago, by which a negative could be duplicated by excessive over-exposure of a plate in contact with it in the printing frame. The proposition was to give an exposure sufficient to produce a faint image on the plate and then develop with an old or well restrained hydroquinone developer. The plate used must be well backed and it is necessary to get the exposure about right, as too long exposure results in fog and too short a time gives a very soft negative. A better plan and one which has given good results in the hands of one of my correspondents, is as follows: Expose the plate under the negative for the usual time and then develop with a strong hydroquinone developer until the image shows well out at the back. Stop further action by immersing the plate in a solution of borax, ten grains to the ounce of water. Wash the plate well and then change the image to a yellowish red, right through to the glass by immersing it in daylight in the following:

Bichromate of potassium...30 grains
Nitric acid.....65 minims
Water.....7 ounces

Again, wash well and give a bath composed of sixteen grains of caustic soda in seven ounces of water, allowing it to remain until the image disappears entirely. Redeveloped and a negative will result instead of a positive as ordinarily. Positives can be produced in the camera in the same way, but the results are not so satisfactory on account of the wider range of luminosities dealt with.

Red Fog After Reduction

Two of our readers have been having trouble with a red fog that appears after exposing negatives to light in printing when they have been reduced by the persulphate of ammonia method. This trouble is due to silver remaining in the film and the only way to prevent the possible appearance of this red stain or fog is to subject each negative so reduced to a hypo bath after being washed for a few minutes following the reduction. A few minutes in an ordinary hypo bath, of course followed by the necessary washing, will prevent any danger of this red fog on exposure to light.

Removing Pyro Stains from the Hands

One way of doing this is to wash the hands well in a strong solution of chloride of lime and follow this with a wash in a dilute citric acid bath. Rubbing vaseline well into the hands, particularly around and into the sides of the nails, before commencing work will facilitate the cleaning of the hands later. Any excess should, of course, be wiped off before commencing work. Keeping the hands wet during development will assist in preventing excessive staining, as will rinsing them often in clear water during the progress of the work.

Post Card Information

The "Postal Monthly," published by Curt Teich & Co., Chicago, and sent free to all dealers in post cards, is conceded to be the highest authority on all matters pertaining to illustrated post cards. It illustrates and describes the finest and most complete line of cards in America, and quotes prices that are a revelation to the trade. No up-to-date dealer can afford to be without a copy.

Club Notes

To Exhibitors in Former American Photographic Salons

The American Federation of Photographic Societies sends greetings and hopes that you will be represented in the Fourth American Salon. The Third Salon, declared by critics to have been the most consistent exhibition held under the auspices of the Federation, will, in the course of a few months, have passed into history; and the pictures composing it will have been returned to their various owners who are scattered over all parts of the civilized world.

The officers of the Federation are now at work preparing the Fourth Salon. Fully one thousand new names will be placed on the mailing list of the Federation, and in such a number there must be some which will appear in the next catalogue. There will always be a limit to the number of pictures that can be hung, but the greater the number of contributors, the more keen the competition and the greater the satisfaction of the successful ones. In a few years, all that you, I, or anyone else can expect, will be to secure representation with one or two examples, the best that is in our power. This is no time to rest upon laurels gained for we have not as yet measured our strength against many who will appear in the list. If we now cease to strive we will be relegated to the class of once active—the rocking-chair and slipper class. It should be the ambition of all good American workers to continue in the harness.

There will be other salons, of course, in the future, conducted under the auspices of other organizations, but the American Salon will for many years to come be recognized, both at home and abroad, as the leading photographic exhibition in this country. Therefore, do not fail to contribute to the Fourth and succeeding American Salons.

The closing date for entries has been fixed this year at September 15th, instead of November 15th, as heretofore. This is necessitated by the fact that this Salon

will visit more cities and cover more territory than any previous one.

Hoping that we may receive your entries, and assuring you that they cannot be overlooked by the juries, I am,

Very truly yours,

R. L. SLEETH, JR.,

President American Federation of Photographic Societies.

The New Hawaiian Photographic Society

Wednesday evening, May 1st, a meeting of enthusiastic photographers was held at the Kapiolani Building, Honolulu, for the purpose of forming a photographic society. Professor Hart was introduced by Mr. Gartley and gave a full outline of the plan proposed and spoke at length on the advantages to be derived from an organization or society such as was contemplated. The obtaining of photographs typical of the various locations about the Islands for the purpose of reference, and placing them on file at the Hall of Archives, was recommended. Howard Hitchcock, Francis Gay, Mr. Thurston and Professor Brigham, each endorsed the proposed organization in short speeches. A committee was appointed to draft constitution and by-laws and nominate officers for the new society, to be known as the Hawaiian Photographic Society; Messrs. Gartley, Hart, Hitchcock, Hosmer and Pope being selected. The next meeting to be at the call of the chairman of this committee, Mr. Gartley. Others present were Professor Edgar Wood, C. A. Fraser, J. Guild, J. W. Warren, H. P. Wood, L. Lewton Brain, R. Catton and R. W. Perkins.

Wisconsin Camera Club Election

B. F. Langland was elected President of the Wisconsin Camera Club at the annual meeting held May 7th. Other officers were elected, as follows: Vice President, E. M. Pierce; Treasurer, Dr. R. E. Washburn; Secretary, Walter D. Horning; Financial Secretary, A. Doerflinger; Librarian, Miss Lily Koehler.

Although only one year in existence, the club has a membership of 130. In the annual competition, B. F. Langland was awarded most points. Frank G. Wood was awarded second honors; G. R. Radley, third; W. D. Horning, fourth; and George R. Goodwin, fifth. It was decided to improve the dark room and general appearance of the club's quarters.

On Tuesday, May 14th, Prof. Alexander Mueller, director of Art Students' League, will give his fourth talk on "Artistic Composition."

The annual outing of the club will be held on May 30 at Crystal Spring, which is near Fox Point. Pictures taken at the outing will be entered in quarterly competition. The program for May is as follows: Monday, May 6th, close of print contest; Tuesday, May 7th, annual meeting and election of officers; Tuesday, May 14th, lecture by Professor Alexander Mueller on Problems; radiation, figure study, decorative; Tuesday, May 21st, lantern slides, travel pictures by John C. Young; Tuesday, May 28th, bromide demonstration by L. W. Browne, of Eastman Co., and Thursday, May 30th, excursion to Crystal Spring Park. Take Fox Point 9:30 car to Green Tree road and walk westward. Picnic lunches.

International Photographic Exhibition at Dresden in 1909

The meeting of the inaugurating assembly for this exhibition took place at Dresden, April 6. There were about seventy members present from all parts of Germany, covering all departments of photography. The Saxon Government was represented by the royal commissioner and privy counsellor, Mr. Stadler. The meeting was conducted by the first burgo-master of the town of Dresden, the privy counsellor of finance, Mr. Beutler. The draft of the program laid before it by the preparatory committee was accepted. According to this, the exhibition will rest on the broadest basis; it will offer a comprehensive representation of photography in all its being and nature, in its many-sided results, in all its connections with economic and cultured life. Through its thoroughly international character—all nations and countries are to be invited to take part on the ground of absolutely

equal privileges—it will be a world exhibition in the truest sense of the word. The large and beautiful Exhibition Palace of Dresden with its grounds offers room and surface enough to accommodate the most comprehensive requirements, and Dresden itself, by its central position, the charm of its scenery, its pleasant life, and more particularly as the center of photographic industry in Germany, is suited as is no other place to such an exhibition. The program of the exhibition is arranged in such a way that each important branch of photography is independently represented. Every exhibited object, whether picture or industrial production, is not only to appear as an article of exhibition but is also to be shown in its relation to the whole of photography as well as to the relative branch of culture which it serves. In this manner the exhibition will be extremely stimulative and instructive to the widest circles and at the same time will be a historic event for photography itself.

On all sides a lively alacrity in work is apparent, so the International Photographic Exhibition at Dresden in 1909 will be a marking point in the history of photography, assuring the latter lasting benefit and improvement. From the sphere of professional as well as of amateur photography, from that of well-trodden scientific photography, and above all of photographic industry, there is already the prospect of great and general participation. The assembly further approved and passed the minutes of the ordinances and chose the board of directors and working committee. In these bodies, besides the representants of magistrates and of art and science, names of the highest repute from all branches of photography are to be found, and a further supplement through leading authorities remained in reserve. Professor Seyffert of the Royal School of Industrial Art was voted president, a post to which the professor is particularly suited, both through his personality as well as through his capability in the management of such an undertaking. The further active participation of the government, as well as of the municipal authorities, is assured to the exhibition and hold out the best prospect of satisfactory financing in relation thereto.

Notes and Comment

Tough Soap Bubbles

A correspondent in Illinois asks for the formula for making big, tough soap bubbles that went the rounds of the magazines a few years ago. Our scant files do not supply the information, but here is a formula that is recommended most strongly by "Good Housekeeping," one of our exchanges: "Into a pan of hot water shave a piece of strong, brown, laundry soap about an inch square. When this is thoroughly dissolved add a tablespoonful of gum arabic and stir until melted. Then a teaspoonful of glycerine is necessary, and lastly a quart of cold water. If the bubble-makers are not very strong and know how to keep the water out of their mouths, wonderfully colored ones can be made by separating this mixture into cups and adding a pinch of different-colored dyes to each. For little people strawberry or currant juice for pink bubbles, and orange juice for yellow are perhaps safer. The lye in the soap plus the glycerine increases the brilliancy of the bubbles, and the gum gives them elasticity. Hot water is necessary to dissolve the various ingredients, but unless cold water is added they expand and break too rapidly in the blowing. The bubbles are so tough that they roll about over the carpet ever so many minutes before they think of breaking."

The New Korona Catalogue

We are just in receipt of the handsome new forty-eight-page catalogue of Korona Cameras, issued by the Gundlach-Manhattan Optical Company, of Rochester, New York. In addition to full and well-illustrated matter covering the popular Korona line of cameras there is space devoted to enlarging attachments, holders, tripods and the like. The reader is reminded that for many years the firm made the manufacture of lenses their exclusive business, their experience and skill being responsible for the well-known Turner-Reich and Verastigmat lenses. The portion devoted to optical lines covering

these and other lenses of their manufacture, including the Turner-Reich Telo-photo attachments, the Turner-Reich Binoculars, and other goods in the optical line. The firm has established a reputation for the moderation of their catalogue statements, claims and promises, in comparison with the excellence of their lines and the satisfaction which the user of their goods secures. This new catalogue can be obtained from the dealer or will be sent on request by the Gundlach-Manhattan Company, Rochester, New York.

Daylight Development

Burke & James, 118 West Jackson Boulevard, Chicago, have gotten out a most interesting booklet describing the process of daylight automatic development of negatives with the Ingento automatic tank. It is a publication that should be in the hands of every photographer who desires to keep up with the advancement being made in the simplification of photography. Full directions are given together with formulae for a number of excellent developers. The liquid capacities of the various tanks are given, together with much valuable information, made still clearer with numerous illustrations. A copy will be sent on request and we would advise every reader to apply at once to the manufacturers whose address is given above.

Picture Postals of Schools Will Reach Whole Country

The sometime bothersome and often purposeless picture postals have at last found their high and appropriate mission. They are to be the messengers, 50,000 strong, from the children of California to their friends in the East, inviting them to visit Los Angeles and the State generally during the N. E. A. convention to be held in Los Angeles in July.

This far-reaching postal scheme was originated by two young men of Berke-

ley, who have charge of the publicity campaign, under the direction of Dr. E. C. Moore, who is chairman of that committee. Eugene Hallett and Robert Hoedel are already well known in Los Angeles, and have the unique distinction of having been editor and business manager, respectively, of the local High School publication, "Blue and White."

Every teacher reports to the principal how many of these cards can be used by the pupils in her room, and the principal reports to the publicity bureau in the Chamber of Commerce, to Robert O. Hoedel, the man behind the gun at present, who is directing this wonderful campaign of converting the East to a western tour.

All Chambers of Commerce in California and many private hotels have been invited to supply postal cards typical of their communities. They are to be real photographs, and must pass muster as true artistic products, lovely enough, in fact, to induce a stop-over at each particular point. These cards are to be given out to every school child that desires one in the entire State. The children are to write a few words of invitation, telling of the cheap rate, and asking their friends to come.

No postal will be wasted. Superintendent of Schools Moore has arranged for the cards to be written in school as a new and delightful language lesson, thus killing several birds with one stone. The children are so interested that they are already saving pennies for the postage, and several of the Los Angeles schools are to have post boxes in the buildings until the last little messenger has been sent out by kind Uncle Sam.

Hammer Plates in Tropical Mexico

The following letter from Mr. C. V. Cooper, manager of the Castilloa Rubber Plantation Co. of Portland, Oregon, speaks for itself:

Portland, Oregon, March 18, 1907.
Hammer Dry Plate Company,
St. Louis, Missouri.

Gentlemen: Referring to your letter of December 5 in reference to using your plates in tropical Mexico, I beg to say that I returned on March 1 from an extended trip in that country, taking with me ten dozen of your 5x7 extra fast plates. With the exception of four or five spoiled

plates (due to my own carelessness) every exposure I made in that section resulted in beautiful negatives. This is the first time I have had such a result in the many trips I have made in that country. The plates were packed in paraffine paper both before and after exposure, brought home and developed here. This is for your information.

Yours very truly,
C. V. COOPER.

Mountain Resorts Issue

An exceptionally beautiful half-tone view of Yosemite Valley is the frontispiece of the May number of "For California," the monthly magazine published by the California Promotion Committee. This number is the second in the series devoted to the resorts of the State, and deals with California's mountain resorts. The April number presented the mineral springs of the State. In the present issue D. W. Coolidge gives an attractive account of the mountain camps around Pasadena, and Thomas C. Evans writes similarly of Riverside's mountain resorts. Outings in San Luis Obispo County are outlined by E. P. Unangst. Joseph T. Brooks gives some breezy little sketches of the mountain resorts of Santa Clara County, and A. R. Waters contributes an article on the mountains of Sonoma County. The Shasta Springs are written about by T. J. Nolton, and George A. Kellogg writes of the mountain resorts of Humboldt. Sketches of Mt. Tamalpais, Yosemite Valley, and Lake Tahoe are contributed by a staff writer of the magazine and a page is given to Promotion Paragraphs. Ask the California Promotion Committee for a copy.

Announcement

Geo. E. Cross and Henry W. Schouton, of Louisville, Kentucky, have combined their businesses and will continue in future under the firm name of Geo. E. Cross Co., at 417 Fourth Avenue. All accounts of the two old firms have been transferred to the new company. Trusting that we may be favored with a visit from you in the near future, we remain

Yours truly,
GEO. E. CROSS,
HENRY W. SCHOUTON.

CAMERA CRAFT



San Francisco, California

Insist on Correct Color Values

If they are in your negative you
will get them by making
your prints on



SEND FOR A CYKO MANUAL

The Anthony & Scovill Co.
Binghamton, N. Y.



THE POSTMAN—PARIS
By S. E. MONTEVERDE

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. XIV.

SAN FRANCISCO, CALIFORNIA, JUNE, 1907.

No. 6

Enlarging Exclusively

By THOMAS H. HOLMES

In this article Mr. Holmes will give a description of his methods which involve several comforts and conveniences conducive to the safe handling of unused paper during exposure, manipulation of the paper on the easel, focusing of the image and control in printing and developing; the result of actual experience.

Bromide enlarging, as an exclusive printing process, is certain to grow in popularity as workers discover that it is as simple, sure and speedy as can be desired, once a little confidence has been gained by practice. Rightly executed, the results need no defense, and the convenience and economy of a small camera are most weighty factors in favor of bromide printing. For some time our good friend, the editor, knowing that I have entirely abandoned contact printing, has been persuading me to give the readers of "Camera Craft" the benefit of my experience, finally assuring me that a straightforward talk would be fully as interesting and more valuable than the theory of a more able writer. Should it strike the reader that the perpendicular pronoun is too much in evidence, he should remember that I am not advising just how it should be done, describing the best way to do it, laying down hard and fast laws, but simply telling how I go about the work myself.

I will pass over the setting up of suitable apparatus and the fundamental principles of enlarging. The text-books, and even the pamphlets of the manufacturers cover these points quite fully. My own knowledge of that part of the work was gained from this literature, and enabled me to assemble a permanent piece of apparatus which I have not since had any occasion to change. By following the printed instructions I was enabled to make satisfactory enlargements in what now seems a crude way. The work was a burden, and the prospect uninviting through a lack of little helps and conveniences which I was left to discover or invent for myself; helps and conveniences which now make the work a pleasure of which I never tire and to which I turn at every spare moment.

My chief interest in photography is centered on two classes of subjects, subjects that practically demand the use of a small camera, and contact

prints from the resultant negatives are almost valueless. During the summer it is yacht and boat pictures taken from the deck of one vessel while passing or being passed by another. As life and action are demanded a large camera is out of the question. When there is action displayed by the yacht being photographed, the same conditions insure an equal amount on the part of the other; therefore I employ a good Goerz lens, a focal plane shutter and a $3\frac{1}{4} \times 4\frac{1}{4}$ plate. Short exposures are demanded, and the subject generally presents the full range of gradation from the dark-red mahogany of the cabin woodwork to the white paint on the hull. The white sails are hardly relieved against the actinic blue of the sky and the smoke due to the proximity of a city frequently tones down the sky to the same intensity as the sails. With little or no opportunity of selecting pose or position, one has to be satisfied with what can be secured. My winter work is confined to home portraiture with a young lady who has just passed her second birthday as the subject. If you do not think the securing of a sharp image of such a subject necessitates snaps with a small camera and the resultant depth of focus, I would advise a trial in midwinter in an ordinary room with some wriggling two-year-old as a subject.

Small contact prints from my negatives being almost useless, I turned to the enlarging apparatus as my only hope and it has far more than gratified my expectations. My first difficulty was the making of negatives just suited to enlarging. Such negatives should be needle-sharp, full of detail, and without great density or hardness. After a long period of experimenting with various plates and developers a chance meeting with C. O. Towles of Washington, D. C., was the means of solving this problem for me. He suggested the use of Hammer's fastest plate, as it has more apparent body than some other fast emulsions, and the following developer, for which he claimed perfect chemical balance, this last condition assuring the bringing out of all the shadow detail before the high lights blocked up too much. I have found the combination all and even more than he claimed, although I have no doubt but that any other good plate with a like well-balanced developer would give as good results, possibly better in other hands.

A.

Metol	60 grains
Pyro	1 ounce
Oxalic acid	15 grains
Water	27 ounces

B.

Sulphite of soda, crystals.....	10 ounces
Water	32 ounces

This should test 70 to 80 degrees.

C.

Carbonate of soda, crystals.....	8 ounces
Water	32 ounces

This should test 40 degrees.

For use, take one ounce of each solution and add eight ounces of water



U. S. MONITOR MIANTONOMOH AT BALTIMORE

Photo by THOMAS H. HOLMES

Firing Decoration Day Salute from 6-lb. gun at noon. Exposure 1-850 second. Series III, No. 1 Goetz. F-68

for a strong developer, and twelve if a weaker one is desired. I frequently dilute even more and get just the sort of negative I require. It is, of course, understood that a ten per cent solution of bromide of potassium is used as needed. Of course, plates may be reduced or intensified, according to needs, but working as I do, it is not difficult to bring them all to such a density that they will print in from one-half to two minutes, enlarging up to 8x10 on contact paper, and in about the same time for a much larger enlargement on the more sensitive bromide papers. Intensifying and reducing upsets the relative tone values and should not be resorted to unless such change is allowed for and felt to be advantageous.

To me the caring for the safety of the unused paper was an annoying feature that consumed some time. Finally I made a box 7x4 inches square and an inch longer than the roll for my two rolls of twenty-five-inch paper, one hard and the other soft working. A strip of thick cloth was glued all around the 7x26 side which was left open, and later fitted with a plate-glass lid held in place by narrow strips of wood nailed around the back and ends. This plate-glass cover was made light-tight by pasting black paper on the under side. The glass will not warp as might a piece of wood and its weight makes the box light-tight when resting on the cloth-covered edges of the box. To secure a sheet from either roll I have only to raise this cover, pull out the required number of inches, drop cover into place and run a sharp

knife along the edge of the glass. The corners are square and the edges straight. This is, of course, done only in a ruby light, but there is no danger of damaging the unused paper through forgetting to place it out of danger. For my 8x10 paper, and I buy it by the gross, keeping in stock both matte and glossy in the carbon and portrait grades, I get four empty 8x10 plate boxes and, after cutting through two end corners of the two outside boxes, I glue this flap to the end of the inside box so as to form a hinge. This gives me a box with a hinged cover and a box that is light-tight, making one for each of the four grades.

From each negative as made I at once make an 8x10 enlargement for my own file, marking the time of exposure on the negative for future use. Each of these prints are filed away in portfolios with others of the same class of subjects. I avoid the bother of mounting in an album, and at a moment's notice have a print available should it be wanted in a hurry. The portfolio plan also makes the prints convenient for inspection by my friends.

Another annoyance was encountered in placing the 8x10 or smaller paper on the easel so that it would lie flat and would not receive too much handling in the process. Push pins were a nuisance and I tried jointed "fingers" of spring wire. These last were an improvement, but even with the assistance of push pins I was never sure the paper was quite flat; it would bulge out in the middle, and, as many of my prints are for reproduction by the half-tone process, it is essential that they be critically sharp. This difficulty was solved by using an ordinary printing frame without glass. In the small sizes, from 10x12 down, it holds the paper absolutely flat and in the larger sizes very much flatter than any other means I have tried. Occasionally, when the paper seems unruly and has a decided curl about the edges, I resort to a pad a little smaller than the opening in the frame. I lay the pad on a table, drop the open frame over it, place paper in frame and secure the back in the usual way. If the pad is a trifle thicker than the depth of the face of the frame the paper is held as in a vise while the springs are sprung into place and the paper is bound to be perfectly flat if the back grips it evenly while in this position. In locking the springs the frame will be raised from the table, and as all four of the edges of the paper are firmly clamped while being held flat between the pad and the back of the frame, there is no chance for it to bulge.

At the exact center of one long side of each frame and at the center of one end I have tacked a piece of tape about fifteen inches long by which the frame can be suspended against any part of the easel by simply using one of the push pins. This makes it easy to adjust the paper in any desired position with the least amount of trouble and with no waste of time. With the frame suspended in this way it requires only an additional push pin under one end of the frame if it is desired to tip it a little to secure upright images of any subject that may be out of plumb in the negative. It is, of course, necessary to hang the frame on the easel to secure the focus. A white card should be placed in position if it is desired to focus accurately, although one might, in a pinch, achieve the same results, by suspending the frame in position and then holding a visiting card over that portion of the back where the image falls that one wishes to focus



APPROACHING THUNDER STORM ON KOOLENAY LAKE
LOOKING NORTH FROM KASLO, B. C. Iso. and Ray Filter used

By D. P. KANE



KASLO, LOOKING NORTH
Iso. Plate and Ray Filter used

By D. P. KANE

upon. I have all sizes of frames, from $3\frac{1}{4} \times 4\frac{1}{4}$ up to 11×14 , and the white cards are glued to the backs so that there is no danger of their becoming lost or misplaced.

Now, just a few words about focusing: When a certain black line in the image looks the blackest, the image is sharpest. Personally I use a large reading glass, about five inches in diameter, and focus until I can see the grain of the thin portions of the negative or, perhaps, a pinhole or other imperfection with a sharp outline. My enlarging is all done by artificial light, and for 8×10 and smaller work I use the paper intended for contact work, employing the regular fast enlarging papers for the larger work. I do this in order to secure as near as possible the effect of a contact print. The Haloid Company make a paper, called Platina, that is particularly well suited to my purpose, as it is somewhat faster than the regular gas-light or developing papers, and is lower in price than many of them.

For developing I use one of the Velox formulae for Metol-Hydroquinone, keeping it in stock solutions. With a rack full of fresh negatives to print I mix up two lots of developer; the weaker being one ounce of stock solution to four ounces of water, and the stronger one ounce of stock to one of water. I lay out a box of hard-working carbon paper and one of soft-working portrait paper, and am ready to print. The appearance of the image on the easel, when focusing, decides my choice of paper as well as developing solution. The manufacturers advise the use of strong developer for the carbon grade and weak for the portrait. I, however, use the solution that I think will most nearly give me the results I want, regardless of the grade of paper. With this combination of two grades of paper and two strengths of developer, I have at my command about the full limit of control possible with gas-light papers.

I have long since become fully acquainted with my light, my paper and my developer, and, though I rarely bother with test strips, I seldom waste a sheet of paper. For timing exposures I use a cheap stop-watch, because it always starts at zero just at the desired moment and I am not bothered with any subtraction or addition or trouble of retaining the time of starting, as with an ordinary watch. I have handy, while exposing, about a dozen large cards with holes of various shapes and sizes in their centers, although the one used most carries a small, round hole about the size of a lead pencil. After giving the paper all the exposure the shadows will stand I interpose one of the cards with a suitable opening directly in front of the lens and throw a beam of light on such of the denser portions as may need such added exposure. In portraiture this is particularly serviceable for intensifying the detail of the eyes, nostrils, lips; lifting them from the surrounding half-tones of the face. Detail in some parts of the drapery can also be brought out, as required, in the same manner.

For rinsing prints between developing and the fixing bath I keep a large pan of cold water in my sink. After pouring the developer back into the graduate I dip up a tray full of water from this pan and development is at once checked, giving me an opportunity of close examination under the ruby light. If development has gone far enough I at once place the print



KASLO, LOOKING SOUTH-EAST
Iso. Plate and Ray Filter used

By D. P. KANE



KASLO BY MOONLIGHT
Two hours exposure Electric light near centre is on steamer at wharf

By D. P. KANE

in the hypo and move it about with a wooden paddle used for that purpose and left leaning against the side of the tray. If more development is required, the water is poured off and the developer in the graduate returned to the print. Working in this way no developer reaches my fingers and the print has been touched only as I lifted it from the water into the fixing bath, and no hypo has touched my fingers. Within reasonable limits as to exposure I can save prints that start to flash up in the developer by this plan of checking development with cold water. Quite often such over-exposed prints will finish in the water and prove of the best quality; in fact, I sometimes work in this way intentionally, in order to secure certain results from particular negatives.

In removing prints from the hypo bath to the washing box I use one of the little wooden clips which are employed for hanging up prints, should this be done before developing is completed. In this way I take no chances of getting hypo upon my hands, and by keeping my fingers out of the developer I avoid staining my finger nails.

Such is my usual routine of procedure, and I have tried to touch only upon those points that can be applied to any enlarging. In my small focal-plane camera I use a No. 1, series III, Goerz lens, and this does duty on my enlarging lantern as well. I might mention, again referring to the dodging of prints, that if some portion needs holding back, I use a tuft of absorbent cotton on the end of a thin wire. I like this way of shading much better than the use of a piece of card, for the reason that its shape is so easily adjusted and the edges blend off so evenly. It is so easy to do this dodging and so easy to secure great improvement by its means, that one feels at a disadvantage when compelled to produce prints in the ordinary way.

Working, as I do, in a definite way, and employing comforts and conveniences which I have mentioned, I find a constant incentive to expend my surplus energy in the turning out of much better work than would be possible were I continually harassed by small annoyances and the uncertainty associated with only occasional use of the enlarging apparatus. Take my advice and do likewise, and you will find your photographic work easier and less expensive, and the results more satisfying.

Again it is a general rule that all the arts and sciences advance together; but this is not without many exceptions. These are not so apparent in the early stages of human progress as in later times. Homer lived and sung when the arts were unborn, or at least in their infancy. The Roman civilization, though advanced in some of the sciences, produced no art except architecture worthy of the name; and in the literary age of Shakespeare and his contemporaries, there was no corresponding sculpture or painting produced in England. In our own time and country, the civilization is extensive and wholesome; the sciences and the more matter-of-fact industries are well developed; but as an offset to them the arts, with some brilliant exceptions, are flippant—witness the poetry, novels, pictures, plays, operas, decorations.—JOHN C. VAN DYKE.

Employers

By CHAS. J. WALL

An Address Delivered at the Last Regular Meeting of the
Photographers' Association of California

The subject of the relations of the employee to the employer as it applies to photographers is one that, I feel, gives scope for a lengthy discussion, and inasmuch as others here tonight will give their views on the subject in a general way, I shall endeavor to make this article concise.

During my career as a photographer nearly all of my time has been spent in the operating room, and it is my intention to give my views more particularly from an operator's standpoint. First of all, I want to say that photography as I have found it is not only interesting but fascinating as well, and I have no regrets to offer for the chance that brought me in touch with photography, as I have always found operating full of interest to say the least. Take, for instance, the variety of subjects daily encountered in the operating room, the individuality of the subject, the scope for character study, the infinite variety of entertainment that each subject affords an operator, from the crying baby to the old man with a life story. Children are always interesting. Even those that protest and have to be conquered afford the operator gratification, knowing that the object of his labor has been accomplished. The operator who uses his best efforts to overcome the more difficult tasks is the one who feels well repaid for his exertions by the excellent results obtained, and it is by overcoming these obstacles that an added charm seems to manifest itself.

An employer should never lose sight of the fact that his employee deals more directly with the public, and his days are often filled with many trials. For that reason he should be very considerate in his dealings with him. The employer should be considerate of the employee as the executive part comes from him. The ideas and methods for the furtherance of the business emanate from the brain of the employer, but only in rare instances does the execution of them fall upon his shoulders.

Compared with most other branches of science and art, photography is still in its infancy, so that even greater improvements may be looked for from time to time. Unlike most of the professions, it is not particularly necessary to make preparation that will necessarily involve great mental effort. As an artist is a slave to his canvas, so, in turn, is an operator to his camera, as each is ambitious for a new development in his art. There are as many surprises in the negative as there are in the mixing of colors on the palette. From the first appearance of the sitter in the operating room the artistic temperament of the operator seeks something that will be attractive and pleasing to the eye and of artistic value to himself and the critical public. There are no instances where laxity is permissible. On the subject to whom nature has been unkind in failing to bestow good looks, the operator must concentrate his mind and use his best efforts to produce

the most pleasing contour and expression. On the other hand, where nature has been exceedingly generous in bestowing her favors, woe to the photographer who loses one line of the perfection. Hence, interest and constant application are demanded. Success in any business undertaking depends upon one's best efforts in filling the requirements of that business in the best possible manner, or that manner nearest perfection. In photography it means the portrayal of the individual to his or her entire satisfaction. Success lies also in achieving that which is good for one's self, while at the same time bestowing a benefit upon others. A man to be successful must by all means secure the attention and confidence of those with whom he comes in contact. Concentration, perseverance, cheerfulness and patience are the requisites, and he who has most of this last-named virtue will best succeed and make himself of the most value to his employer. These are the days of specialists and the man who reaches the top rung of the ladder has very little difficulty in obtaining a position. The main requisite is that the man must love his profession. It is this that gives him the true courage and greatest reward. The man who always tries to get off as easy as possible when working for others and does as little as possible for the wages he receives will never get ahead or amount to much in life.

Both employer and employee should at all times be willing to do or sacrifice when it will help the other. Friendly relations should be regarded as necessary, and each must recognize that neither can exist without the existence and efforts of the other, for each is dependent upon the other. The interests of employers and employed are mutual because each furnishes something that the other needs. It would be wise for employers to school themselves in the belief that employees are almost human, and that a little gambol in the green fields occasionally would be other than detrimental to his purse. Nine employers out of ten make no provision for the regular and systematic relief of their operator. As a usual thing, an operator is so intensely interested in his profession that his regular leisure is not his own, as he gives it to the furthering of the profession by visiting and exchanging views with other members of his craft.

The Sunday labor question is another matter which from time to time agitates the photographers. The great volume of Sunday labor grows out of personal service, the demand which individuals make of other individuals, either from necessity, from custom, or from desire. Railroads run on Sunday because individual members of the community demand the convenience. Newspapers are published Sunday because readers want the news. But photography does not come under the head of absolute necessities. Force of habit has kept many studios open on Sunday, because the thought has not suggested itself to employers to close, and in order to bring about a reform it would be necessary to have co-operation among the employers. This would be a good matter to be taken up by the employers in justice to their employees.

One of the reasons why men are dissatisfied with their positions is the lack of appreciation shown them by their employer. The ideal employer is one who has a thorough knowledge of the profession together with executive



A PORTRAIT
BY GEORGE T. POWER

ability. I give these qualifications first, for I believe that the employee working for a man who does not know his business as he should will in time stagnate. An employee is sometimes inclined to get into a rut before he realizes it, and it is the help and suggestions he gets at times from the successful employer that make him a better employee. The ideal employer is one who shows that he is personally interested in the welfare of his employee. A little attention, encouragement and appreciation shown by the employer from time to time will be an incentive to the employee to do the best that is in him. If a man feels that he has used his best efforts to the interests of his employer it is but natural that he would esteem and value some evidence of his appreciation. Many employers are of the opinion that praise will make the employee's self-esteem grow to objectionable proportions, but it is a mistaken idea. There is no danger outside a few possible exceptional cases. When one gives his best efforts he is always fully conscious of it and unless some recognition is given, the efforts seem useless, and the worker is liable to fall back into the old groove with a sort of "what's the use" mental attitude. Employers should cultivate systematic habits in all their affairs and should also see that absolute harmony prevails amongst their employees. It is essential to the welfare of both that all friction be avoided as much as possible. With a business well systematized an employer who will voice appreciation when merited, employees working harmoniously and alive to the importance of mutual co-operation and their individual best efforts, the ideal relationship between employer and employee is secured.

I thank you for your kind attention.

Large City or Small Town?

By "OLD FORTY"

My caption is a question that all of us have pondered over. And whichever way we decided—oft have we wished—"We'd gone to the other place." The writer was for many years in San Francisco, and only on the advice of some of the best brains in financial circles, removed to a small city. "You will be able to come down here and buy half these picture makers out at auction in a few years" they told me. Their words were only too true. One day I was in San Francisco, and accidentally saw a red flag hanging from the door of my "alma mater," Bradley & Rulofsen's. I climbed up with George D. Morse, and bought a lot of needed accessories. How many of those running galleries in large cities own their own homes, a share of any paying stock, or have any investments of value? Nearly all photographers in the smaller cities and towns have something of the kind. Proof enough, is it not? "A word to the wise, etc."

A Few Pages from Madge's Diary

By HARRY MILLAR

April 21.—Papa gave me one of the darlinest cameras this evening. It has such a cute little finder, and such a dear case to carry it in, and the instructions are so plain and complete that I feel sure of making a success in the very beginning.

April 22.—Snapped a dozen films today; took a picture of the cat Ikey, Jinks, our dog, papa and mamma, Bowser's baby, and several other pictures. Something **must** be wrong with the camera. I am sure that I followed the instructions. First, I developed the films in hypo; I am positive of that; then after thoroughly washing the films I soaked it in the metol-hydro something fixing bath, but nothing appeared. The films were just as transparent as glass.

April 24.—After carefully reading the instruction book again, I discovered that I had made a slight mistake; I should have used the hypo for the fixing bath and metol-hydromedary for developing.

April 25.—Oh, dear! I am so discouraged; something **must** be wrong with the camera. I am sure I could not have made a mistake. It rained all day, so I took several snapshots indoors, and when I developed the films all I got was two big black spots on one of the films. Tomorrow I am going to give that man that sold me the films a piece of my mind.

April 26.—It is so strange that I should have overlooked the fact that I must not take snapshots indoors. However, the gentleman was so kind in showing my error that I did not have the courage to scold him.

April 27.—Oh, I am so excited, my films are beauties, every one of them, and I **do** believe that I have discovered color photography, when I hold the films slantwise there are the most beautiful iridescent colors imaginable. I am going to show them to Charley tomorrow; he will know; he has a camera and knows all about one.

April 28.—I do believe that Charley—I mean Mr. Ingram—is one of the most horrid men that ever lived. When I showed him those beautiful iridescent colors he said they were developer stains, and ended by laughing so immoderately that I was forced to bid him good-night, and I rushed to my room.

April 29.—Charley called this morning and apologized, and I was so glad to see him that I—well, I—we went out for a walk, and Charles showed me just how to take pictures, and when we developed them this evening they turned out just grand. I do believe that Charles is one of the jolliest of fellows, and when I squeezed the bulb he insisted on squeezing my hand also, to make sure, of course. Charles is so well meaning.

April 30.—Charley—there's the bell! I must go and see him.

May 25.—We, that is, Charley and I, take a great many pictures now, and we enjoy those dreamy, misty, evening effects, especially when the moon

is hidden by the trees, throwing long, vague shadows and rendering everything so indescribably beautiful that——

August 15.—Well, our honeymoon is at an end, and I am so happy, and to think that my camera should have been the cause of it. There is some consolation, and that is, that I am not the first girl to succumb to the charms of a camera fiend, and as I look back on the pages of my diary I realize now for the first time how it all happened.



PAYNE BLUFF, NEAR KASLO, B. C. By D. P. KANE

(There is an almost perpendicular drop of a thousand feet at this point)

The Demonstrator Talks

By CHARLES R. OGILVIE



A BUSH FISHERMAN

By J. WILLIAMS

A Typical Australian Subject

RETURNING the other day, the editor advises me that my little talk in the January issue about Mr. Monsen had been confirmed by Mr. Monsen himself in an article in the "Craftsman" for March and the fact that my statements were so well founded was so surprising that the Kodak people were copying the latter article in their advertising this month. Mind you, they found no reason to discredit the idea conveyed, but that the details should have been just as I put them together seems to have been good ground for sarcasm on the part of the editor. Some fine day I will start in and tell what I know about the way a certain editor treats his contributors, the people who make his magazine a success. And this reminds me; in the last issue of a photographic magazine published in St. Louis I read: "Earnest and

thoughtful writers on photography are given *free* utterance in the columns of this journal." The italics are mine. I once thought that possibly some writers got paid for their work, but it seems not, at least those who are "earnest and thoughtful" on photographic subjects, seem to be exceptions. I wish to give due warning right here that I shall never squander my coin securing "utterance" for my "earnest and thoughtful" efforts in "Camera Craft" or any other journal. It is bad enough to have to put up with the rather thinly veiled sarcasm of the editor.

Tank Development of Plates

Tank development of plates is growing extremely popular if one may judge by the demand made on the dealers. Burke & James of Chicago have just gotten out a booklet that is sent free to all who may write and which can be secured of all progressive dealers, telling about all there is to know about the process. In this age of snapshot work tank development will prove very effective in securing fine negatives from short exposures without danger of blocking up the high lights. Correctly and full timed negatives do not show such a decided improvement in the final results, but the being

able to put one's exposures down in a tank and allow them to develop themselves, with full confidence that they will have better quality with the minimum amount of trouble, is enough to win anyone to the method if he would simply give the process a trial. In addition, the freedom from scratches, frills, stains and the like is enough to commend the method if no other reason existed. Several good formulae are given in the booklet referred to, but the microgen formula given by Mr. Clute in the last issue I know by experience to work to perfection. Agfa Glycin is the developer that I used several years ago when tank development was so much written about and I am pleased to find that this booklet recommends this developer especially, although I think I would slightly increase the amount of Glycin for a Cramer or a Hammer plate.

Color in Portraits

The advertisements of the new Royal Velox seem to ignore one very important point in its favor. Try a simple experiment. Make a print from a portrait negative, preferably a bust picture in which the arms and shoulders are concealed but little by drapery, on a black-and-white paper and a print on the new Royal Velox toned with Velox re-developer. Compare them and observe the added roundness that the warmer print seems to have. Warm tones in a portrait always seems to impart a certain amount of roundness that can not be secured in any other way. It is simply this point that has always made it so hard to induce the real critics, the buying public, to accept black-and-white work for their portraits. I think the making of the suggested experiment will be a revelation to many who have never observed the fact which the experiment demonstrates. The new paper is certainly very fine for landscapes and much other work, but it should not be forgotten that warm tones in portraits have a stronger claim upon popularity than the present vogue of sepia tones.

Hypo-Alum Toning

On the file was a letter awaiting my return. The editor handed it to me and on opening it I found it was an inquiry as to hypo-alum toning for bromide prints and the writer wound up by saying that he wanted the advice of some one who knew, not a formula that the editor could copy out of a book. I can be a little sarcastic myself and I took full advantage of the opportunity. But to business: The formula is as follows:

Hypo	10 ounces
Alum, powdered.	2 ounces
Sugar, granulated	2 ounces
Water, boiling	70 ounces

This makes five pints and of course any proportionate amount may be made up. The hypo is first dissolved in the water and then the alum added slowly, the sugar following. The resultant solution should be milk white and used without filtering. It should be allowed to stand and ripen until the next day and it can be made still more effective by heating it up to about 130 degrees Fahrenheit and allowing it to cool a few times. It

can be used repeatedly and in fact works better as it has been used. It is a good practice to age a new bath by throwing in such waste bromide paper as one may have handy. A new bath does not give as good tones as an old one and it has a tendency to bleach the prints somewhat. The prints are of course first fixed and washed, then transferred to the toning bath while the latter is cold. The bath then brought up to a degree of heat just short of melting the emulsion, say between 130 degrees and 140 degrees Fahrenheit. Into the cold bath first hardens the print. If an alum solution is used it will carry the alum into the toning bath and upset its composition. If blisters appear while washing after toning, follow toning with an alum bath, but this is rarely necessary except when the toning bath is used cold. A good blue-back print such as is secured with amidol, gives the best tone. Allowing a portion of the print to become uncovered with solution in the fixing bath and thus exposed to air or white light will cause spots when toning. Otherwise the process is very simple and success quite certain.

Kodak Home Portraiture

I am not mentioning any names this time, but there is a serious worker right here in San Francisco who is making some of the finest portraits I have ever seen, making a business out of it and making all the negatives at the sitters' homes with a screen focus Kodak. By the time this reaches the reader there will be an exhibition of his work at Paul Elder's and you can buy a few of his pictures at about ten dollars each. His portrait work brings about the highest price obtainable and the instrument he uses makes the ordinary cumbersome studio outfit look like a relic of the past. An article covering his method of work will appear in this magazine at a no very distant day. The average person is much less liable to a fit of self-consciousness in his or her own home than in the strange and distracting surroundings of the average operating room. The operator who finds himself within the doors of his sitter's home is on a much better footing than the man to whom they might come as to any other professional whose services were required. The use of a simple Kodak, familiar to all, is another point in favor of the plan. All in all, home portraiture is destined to become most popular, and what can be better suited to the work than the Kodak?

Two Professional Utilities

I have been reading a report of the Aristo School recently held in New York and I notice that the Percy King light controller was used. Everybody here on the Coast knew of Percy King and his excellent work in Los Angeles. I have seen one of these light shades in use in his hands and in the hands of others, and I can recommend it without qualification. It does not lengthen the exposure or decrease the illumination, but simply tones down the light at any point or points desired. It is simplicity itself in operation and the amount of control which it gives is a revelation to the man who has never used one himself. It was patented about two months ago and its sale has been placed in the hands of George Murphy, Inc., 58 East Ninth street, New York. Write them for a circular showing several

illustrations of portraits made with and without the controller. If the examples are not convincing you have my assurance that the screen is one that you would not be without for a day after giving it a fair trial. At the same time ask the same firm about the Cornell lens hood and light restrainer. I am not acquainted with either of these two last utilities, but they look all right, both in design and application. The simple fact that George Murphy, Inc., are marketing them is a sufficient guarantee of their worth. A studio camera equipped with these two fitments and with a Folmer & Schwing focusing attachment would seem to be about the acme of convenience. To the man who wants to give his whole attention to the sitter, a camera so equipped would be about perfection.

The Professional and the Magazine

A few years ago we were constantly told that the professional did not take the magazines of his craft. We hear the same statement today, but less frequently. But they always came from the East. Out here it is different. On my last trip I had occasion to refer quite often to a clipping in the January issue of this magazine concerning the ammonium persulphate reducer, which is a hobby with me. Just about nine out of every ten had their own copy of the magazine. Talking the matter over with these professionals, I found that they valued the magazine just on account of these little hints about intensifying, reducing, toning of bromides and the like. The absence of profession-matter did not trouble them in the least. What they deplored was the scarcity of advertising covering professional goods, particularly the new things. "The well advertised article is always a safe buy," as two or three of them explained in different words. Despite the fact that they get circulars and the like almost constantly, an advertisement in their favorite magazine invariably wins their confidence and not infrequently their orders. They feel as do those in any other line of business, that any firm can get out a nice circular or catalog, but only the firm with a good line and a reputation to sustain can make money by advertising in the best magazines. Of a given article, the particular one that is advertised by the most elaborate circular and the most promising claims is not by any means sure to prove the best. On the other hand, the one that is advertised regularly is sure to compare favorably with any in the market if it does not really excel. As one of them explained: "I never got stung on a well advertised article, but I have been handed the lemon quite often through believing everything I read in a circular."

Work with the New Color Filter

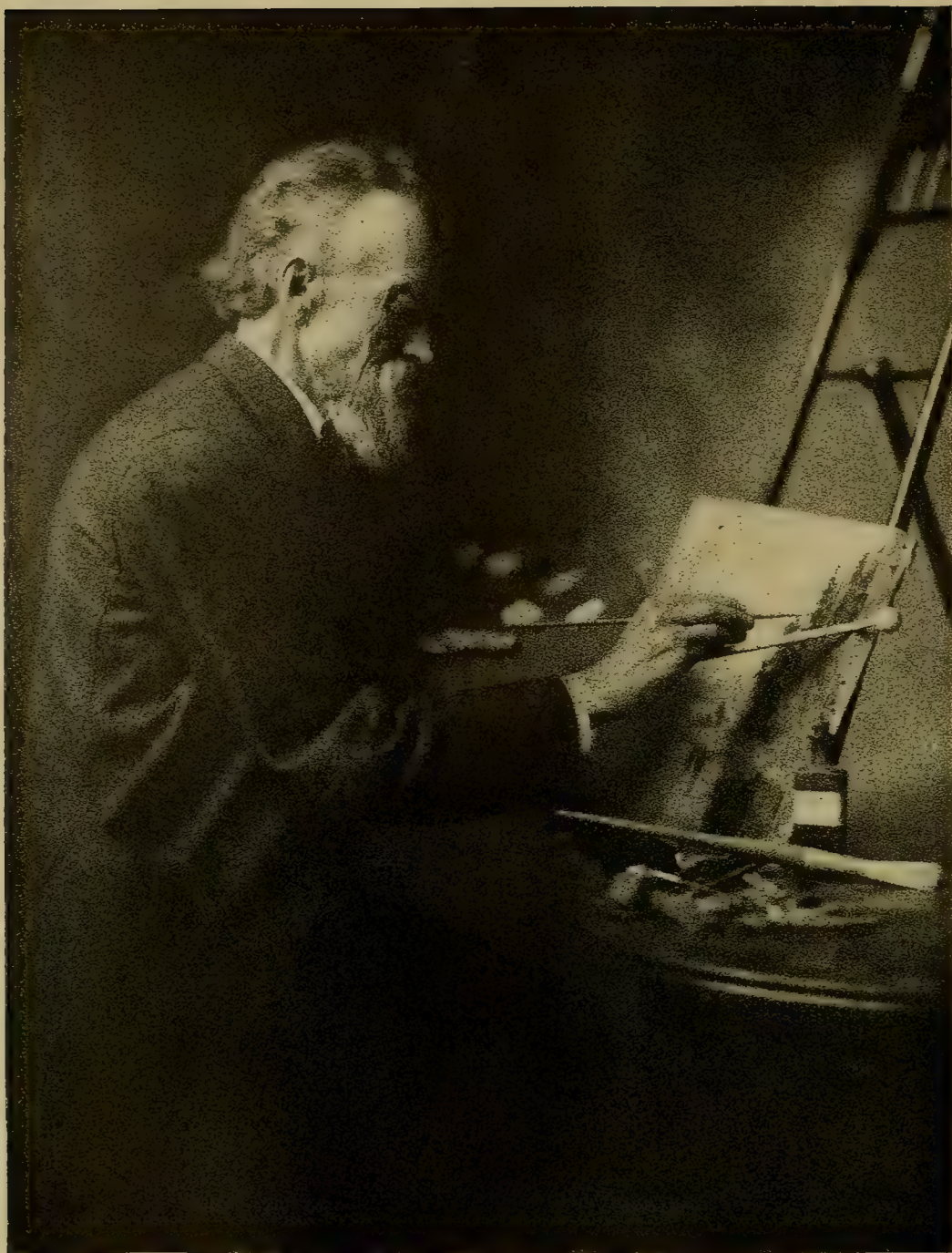
Before the fire I had occasion to borrow several times a color filter which was given to the editor by the elder John Carbutt a number of years ago. This filter was one of three perfect results which Mr. Carbutt secured; one of the three he used for his own wonderful pictures of the Berkshire Hills, another going to a well known New York amateur, and Mr. Clute securing the third. With Mr. Clute's other belongings it was lost in the fire, and on enquiring concerning it he loaned me one of the new Ingento Color Filters,

with the positive injunction that it must be returned promptly and a report made on its action. This I promised to do, but now, coming to the actual undertaking of putting my unqualified praise on paper, I am confronted with the absurdity of recommending an article devised by the final authority on orthochromatic photography, R. James Wallace, photo-physicist of the Yerkes Observatory, despite the fact that I have always posed as somewhat of an authority upon the subject in my own little circle. Mr. Wallace has been engaged for several years in experiments calculated to secure a ray filter that would give perfect correction upon isochromatic plates in astronomical work, necessitating experiments with hundreds of dyes and the most critical tests. Star clusters photographed with his filters have recently electrified those interested in astronomical work throughout the world. The Ingento Color Filter is the outcome of this scientific research applied to the practical work of the photographer. All that I can say is that the new Ingento Color Filter is the best that it has ever been my good fortune to use. The varying shades of green shown by foliage of different character are rendered with a fidelity that is remarkable. Work done on ortho or isochromatic plates, using this new filter, will be a revelation to the worker who has heretofore been satisfied with the usual results secured with an ordinary filter that works by eliminating certain colors, while allowing the invisible ultra-violet to act. With the Ingento screen there is strong action in the yellow and green, a diminution in the blue and violet, while the ultra-violet is entirely cut off, assuring perfect color rendition with any good brand of iso or orthochromatic plates.



THE SHEEP PASTURE

F. A. L. SWANSON



A CONVENTION PICTURE
By A. L. JACKSON
Tacoma, Wash.

A Rapid Three-Color Carbon Process

By H. E. BLACKBURN

Owing to the fact that many tri-color workers are discarding complimentary carbon tissue for stained gelatine relief, it follows that there must be experienced some serious drawback to carbon work as practiced to-day. The majority claim that any pigment that can be used for color work is too opaque, others have their troubles with slow drying, and resulting insoluble tissue; while the "beginner" is amazed by the many chapters he reads concerning the possible failures and their remedies, and the described outfit makes it look to him more like a "Blue Monday Washday" than a carbon process.

In this article I shall call for only such equipment as you can find around the ordinary dark-room, and the material can all be secured at a nominal cost right here on this "blooming continent." Briefly speaking, one negative, preferably of some well-lighted subject containing the three primary colors, is made on a pan-chromatic plate like Cramer's or Lumiere's, through a red filter; dry filter costing about \$6.00 per set of three, furnished by George Murphy, Incorporated, New York City, or Lumiere Company, Burlington, Vermont, at the back of a rapid lens (Cooke, Goerz, or any good process lens), using the ordinary camera and holder. A second negative is made through a green filter, and a third through a blue-violet, the ratio of exposure being eight, five and three for the three screens in the order mentioned.

These plates are developed together in a tank or large tray, using no light for the purpose, as no corrections for improper exposure can be made in the developer, for three minutes at sixty-five degrees Fahrenheit, by some rapid, soft-working developer like Ridinol, in preference to Hydroquinone or Pyro.

The three finished negatives should all appear alike in that portion representing objects having no color, such as a piece of white crumpled paper. Such an object in the composition makes a good test point. The image of any colored objects will vary in density in each negative, according to the color values of the particular subject.

Prints are made from these negatives, by the double carbon transfer process, using complimentary tissue. The yellow tissue is printed from the blue negative, the red tissue is printed from the green negative, and the blue tissue from the red negative. The ratio for the above bi-chromated tissues being twelve, eight and four. The tissue is exposed under the proper negative, wet, and transferred to a wet glass, waxed plate; then stripped in warm water, and washed out or developed so as to speak. These prints bearing plates are then dried, re-wet, and squeezed or cemented to wet single transfer paper, in the order of yellow, red, and blue, the result being, after stripping, a color photograph in carbon that imitates the colors of the object photographed with marvelous fidelity.

The first requirement is to secure the following material that will necessitate an outlay of about twelve dollars: One roll each of tri-yellow, tri-red,

and tri-blue carbon tissue, and one roll of single transfer paper. Both George Murphy, Incorporated, and G. Gennert, New York City, furnish tissue that meets the spectroscopic requirements. Always purchase tissue in rolls, as cut sizes will vary in shrinkage. Cut slips from each roll and place them in water at ninety degrees Fahrenheit. If the color does not wash off in five minutes, do not use the rolls. Next raise the temperature to one hundred and fifty degrees Fahrenheit, and if the transfer paper does not become tacky, discard it also, for you can not work old and insoluble tissue.

If the tissue is found to be fresh, saw through the roll, cutting it up in widths to suit your negatives. Unroll one of the pieces of yellow tissue until you have a double length, then fold color side out, in the middle, and pin the ends together. Do the same with the transfer paper, cutting it a size larger. Remove the image from twelve old negatives that are free from scratches and a size larger than tissue, in Farmer's reducer, and after washing well, and drying, immerse them in the tissue sensitizing bath for one minute. Then rinse, again dry, and expose to strong light, not sunlight, for thirty minutes. For a third time, wash well and dry. These plates are for temporary supports.

Take a bottle containing twenty-five ounces of benzine, and pour into it while gradually shaking, two hundred and fifty grains of melted beeswax; then shake for five minutes and add very slowly, one drachm of dammar varnish. Shake for five minutes more, and then let it set for a day; after which shake well, allow to settle, and decant the clear solution for use. Label this "waxing solution." Wet a piece of canton flannel with this waxing solution and clean gelatine side of plates; then pour the solution on and flow plate as in the days of "the old wet plate process."

As the temperature of the baths figures very prominently throughout in carbon work it is well to have a galvanized iron tank made about 24x15x12, and it should have four supports so as to raise it from the floor or table to permit the placing of an oil or gas stove beneath. One can suspend his sensitizing tray from the upper edges of this tank, and ice the water beneath to suit, or one can raise the temperature with the oil or gas stove to soften his single transfer paper. When tray is taken out the tank makes a good developing box. Fasten a large and easily seen thermometer in one corner, well protected in some way from breakage.

A bichromate bath that works in any climate, rain or shine, and one that permits the preparation of tissue in twenty minutes, is made as follows: Grind up one ounce of bichromate of potash, C. P. (use only the C. P.), in ten ounces of hot water; when dissolved add ten ounces of iced or cold water, containing one hundred grains of salicylic acid and five grains of bichloride of mercury. Keep this bath at sixty degrees Fahrenheit by using ice in the tank, if necessary. Dip the yellow tissue in this bath, and keep it turning for three minutes; then take it out and squeegee it, pigment side down, onto a piece of glass. Strip it and dip it into a bath of wood alcohol for three seconds, then squeegee onto a piece of clean tin and dry near a stove. Tissue thus treated will strip in twenty minutes, during which time it must be kept from daylight, and should be used as soon as possible. Never work but one set of negatives or more than one color of tissue at a time.

The correct exposure is best determined by trial and error. Place a sheet

of yellow tissue under the blue filter negative in one printing frame, with a slip of the same color tissue and a slip of solio paper under the red filter negative of the same set in another frame. Place both frames out in a strong light, avoid sunlight, as it tends to over-exposure or insolubility. When the solio is proof deep, shake both frames in and pull out the yellow slip from beneath the red filter negative, leaving the solio slip in place. Wet this yellow slip, avoiding daylight, and when it starts to straighten out flat, squeegee it onto a piece of temporary support, or better, a piece of matt celluloid. Place the two in water at ninety degrees Fahrenheit, and if it peels off at once and the pigment washes off readily, it is underexposed; in which case set both frames out again until the solio strip is a deep tone, when you will be safe in removing the yellow tissue for development.

Take this exposed tissue and plunge it face down in a tray of cool water with one of the glass supports underneath, waxed side up. Turn the tissue until the bubbles leave and it starts to straighten out, and here is where most carbon workers fail. Just when the tissue starts to straighten out one should lift the glass, waxed side up, out of the water with the tissue, pigment side down, on top to drain. Do not squeegee as is advised in all the books. The adhesion is not one of pressure, but of suction and if the tissue absorbs too much water there will be no suction no matter how much pressure is applied. Rub the tissue just enough to expel what confined water there is between the plate and tissue, but no more. Do not try to rub it bone dry or set it aside to dry. This is against the precepts of the old school, but try this method and you will be convinced that I am right. Plunge the tissue and support, tissue upward, into the tank of water at ninety degrees Fahrenheit. Then wait until the color starts to ooze out from the edges. An ounce of bicarbonate of soda to ten gallons of water is preferable to water alone and will help development. Then pull the paper support from the glass, leaving a mass of the color that will wash down by laving. Do not pour the water on in a strong stream or you will have harsh prints. In ten minutes you should have a clear image which can be determined by placing the print, face upward, on a piece of white paper. Do not get the prints too heavy, as they dry darker than they look. Then wash under tap and dry. Print the red tissue next, the blue last, and when you have the set of yellow, red, and blue print plates, you may mix up the cement which will be required. It keeps well, and is made ready for use by simply warming. Swell two hundred grains of hard gelatine in nine ounces of water; then melt it and add one hundred and fifty drops of glacial acetic acid. Raise the temperature to one hundred and fifty degrees Fahrenheit, and stirring meanwhile, add slowly, away from fire, twenty-six ounces of wood alcohol. Keep in a jar ready for use.

Soak a sheet of single medium transfer paper in cool water for one-half hour, then in water at one hundred and fifty degrees Fahrenheit for fifteen minutes or until its face side is tacky. Next place the yellow print on its glass in a tray of cool water for one minute, and then lower the tacky face of the single support onto this glass bearing the yellow print. Lift the glass bearing the tissue, gently rub out any air bubbles, and set it aside to dry. It will strip from the waxed glass in about four hours. Then wet a piece of canton flannel with benzole, to which a little whiting has been added, and rub

off any wax that may be on the yellow print. Dip the red print glass in cool water for one minute and set aside until surface dry. Dip the yellow print paper into the cement, which should not be over seventy degrees Fahrenheit, and lower it onto the red plate, gently rubbing out any air bubbles, and registering the red with the yellow before the cement sets. Then place near a fire, when it will strip in ten minutes. Next clean the yellow-red print with benzole and cement it on to the blue print plate; the result being a tri-print showing the original colors. Should any one color be lacking in strength, transfer a fourth print of the lacking color. Being carbons, they are permanent.

The finished print can be squeegeed to tin-type for glossy effect, or rubbed over with benzole to secure matt finish. They are best mounted on grey cards using kodak mounting tissue. A course of reading from Marton's Carbon Treatise or Van Hubl's three-color work, will give the progressive worker more details in this interesting work.

For those who object to the opaque nature of the pigments that carbon manufacturers are compelled to use, owing to dye stuffs staining, and who want great transparency of color at any price, the Rotary Co., No. 12 New Union Street, London, E. C., England, furnish celluloid supports coated with the proper colors. These are sensitized as in ordinary carbon work, exposed under negative through the celluloid, washed out, dried, and transferred to single transfer paper direct; thus saving the much talked about double transfer process. The saving of this trouble more than pays for the advanced price of the celluloid.

Better Prices

By "OLD FORTY"

We note an inclination all along the line to raise prices, and the feeling is certainly a good one for the many who have been breaking their necks to see how cheap they could turn out a dozen photographs rather than how artistic—and how permanent at the same time. Old customers are continually showing the writer work from his gallery made in the early seventies, as bright as when turned out, because he gave special attention to durability. Some few only have maintained a price that would allow a livelihood; they are now "getting in" on a renewed patronage, desirable, too, but quite a surprise to the "three for a quarter and life-size crayon thrown in" fellow, who neither knows nor cares a flip as to the artistic value of his work.

It now looks to us "old fogies" as if better times are close at hand for the careful, faithful worker. Many strong points of an educational nature along artistic lines have been received by the "Kodak" and "push-the-button" aggregation, and this has in turn spread to the great public. People now find fault with a photograph unless it seems to be a picture. A "photo" is no longer sufficient; one's work must have some claim to the picturesque. Hence, we must lose no time or spare either patience or expense to make work that will please along those lines. Furthermore, we must keep our studios neat and as attractive as possible; we must use courtesy and brains throughout every department, and we must study the literature of our craft. We will certainly find our so doing remunerative.

The 1907 Exhibition of the Photo Pictorialists of Buffalo

A Brief Criticism by WALTER ZIMMERMAN

This exhibition of the Photo-Pictorialists is very nearly the finest photo-pictorial collection I have ever seen. In some respects, for instance, harmony in style and tone, nearly faultless taste in presentation, I consider it to be unsurpassed. I could mention a number of exhibitions composed of selections made from a large number of entries, that are excelled by this



MORNING ALONG THE SHORE

By W. H. PORTERFIELD

Buffalo collection. Although it contains but the work of eight men, it has the harmony of character and presentation that one would expect from a collection composed of the work of a single artist of experience and genius. It holds together admirably, is pleasing and satisfying at first view, and does not weary at subsequent visits. This is praise that can rarely be given to groups of art productions of any kind, but still more rarely to those embracing photographic art. As hung on the walls of the Photographic Society of Philadelphia, the exhibit gained the praise of every member and of all visitors, without, so far as is known, a single adverse criticism. One would be surprised at finding such work proceeding from a large metropolitan club or society, but the surprise is still greater at finding it to come from a city not heretofore holding rank as an art center. As in the 1906 exhibition, the excellence of the work lies in the masterful presentation of land-

scape and "atmosphere," the figure work being below the high standard set by the examples in the former class. The exhibition ought, as a matter of fact, to be treated as a whole, but I will add a brief expression of opinion concerning the individual entries.

There are several works of such high order of merit that it is difficult to rate their relative value, in addition to which, individual tastes would differ greatly, but I believe all would agree that a certain half-dozen includes gems of a very high order. My own rating of the best pictures would place them in the relative position, as follows: No. 32, Mr. Porterfield's "Pittsburgh," a beautiful effect in composition and atmosphere; No. 56, Mr. Sides' "Somber



OUT IN THE COLD THEY STAND

By S. S. LLOYD

Twilight;" No. 40, Mr. Porterfield's "Crescendo," a most daring atmospheric effect, well executed; No. 15, Mr. Keller's "A Sunny Hillside," a miniature landscape of great beauty; No. 55, Mr. Sides' "The Source," one of the most perfect of the collection, but of less originality than others; No. 42, Mr. Porterfield's "Moonlight in Winter," of great originality and beauty, notwithstanding it is a rather commonplace subject; No. 51, Mr. Sides' "The Gathering Storm," a fine atmospheric effect; No. 31, Mr. Porterfield's "Branch



SOMBER TWILIGHT
By EDWARD B. SIDES



A SENECA MAIDEN

By JNO. M. SCHRECK

of a Tree," a delightful decorative panel; No. 36, Mr. Porterfield's "Looking East at Sunset," another fine effect from a commonplace original shown on the back of the frame; No. 46, Mr. Schreck's "King Birds," a very delicate and pictorial treatment of a technical subject; No. 32, Mr. Keller's "Spring-time," and No. 41, Mr. Porterfield's "Morning by the Shore."

After these twelve of the first grade, I would select the following, which would be of the first grade in many excellent exhibitions, listing them numerically: By Mr. Anthony, No. 2, "Eventide;" by Mr. Booz, No. 4, "The Turn of the Road." Writing detracts from the effects of this last, in my opinion. By Mr. Keller, No. 17, "Solitude," and No. 24, "A Study in Tones;" by Mr. Lloyd, No. 27, "Decorative Panel," and No. 30, "Along the Jersey Coast;" by Mr. Porterfield, No. 34, "Wind-Swept," and No. 39, "Remnant of an Old Orchard;" by Mr. Schreck, No. 43, "Fleur de Lyss," and No. 47, "The Village Church."

A second grade, numerically stated, would include: By Anthony, No. 1, "The Old Violinist;" by Mr. Booz, No. 5, "The First Love Letter," No. 6, "The Little Pool," No. 7, "Holly Beach," and No. 8, "In Mother's Arms;" by Mr. Hatch, No. 12, "The Brook," and No. 14, "The Docks, Philadelphia;" by Mr. Keller, No. 16, "The Old Home," No. 18, "Autumn Brook,"

No. 21, "Summer Morning," and No. 25, "Up Stream;" by Mr. Lloyd, No. 26, "Out in the Cold They Stand," and No. 29, "The River Road in Winter;" by Mr. Porterfield, No. 33, "The Willows," No. 35, "Landscape Study," and No. 37, "After the Day's Work is Done;" by Mr. Schreck, No. 44, "Storm-Bound," No. 45, "Princess," and No. 49, "A Seneca Maiden;" by Mr. Sides, No. 52, "A Doorway Study," No. 53, "The Mission Door," No. 54, "Homeward," No. 57, "The Age of Romance," and No. 58, "Quietude."



A SUNNY HILLSIDE

By G. EDWIN KELLER

Others of lesser interest, in my opinion, are: No. 3, "The Fire Burns All;" No. 9, "In Old Virginny;" No. 10, "The Bend of the Road;" No. 11, "The Dawn;" No. 13, "The Sentinels;" No. 19, "Sunrise;" No. 22, "Morning," and No. 48, "Wild Sunflower." My object in making this criticism in this way is to show how the work impresses a disinterested outsider.

The presentation of this year's exhibition is one of the most pleasing features. The framing embellishes without distracting or detracting from the beauty of the pictures in every case.

We take this opportunity of supplementing Mr. Zimmerman's criticism

of the exhibition by a few words of our own. The Photo Pictorialists of Buffalo is a new society, having no connection with the Buffalo Camera Club, another creditable organization of the same city. After leaving Philadelphia the collection was shown at the Corcoran Gallery, at Washington, where it was hung as a unit and given separate space in the Capitol Camera Club's catalogue.

During the month of May the exhibition was seen in the Art Institute in Chicago, where it received the most favorable commendation and excited great praise for the artistic manner in which the workers interpreted various phases of nature.

The "Washington Times," in mentioning the exhibition in that city, says:

The Capitol Camera Club showed its exhibition in this city during the last month, and the collection will be exhibited in several Eastern cities before the frames are returned to their owners. All in all, the Photo Pictorialists of Buffalo, and its members, are to be congratulated upon the success which they have achieved, a success that is all the more to their credit, on account of their small strength numerically and the short time during which they have been organized.

Ozobrome in the United States

Just as we go to press we have a letter from Mr. Manly of the Ozotype Company, advising that arrangements have been completed whereby the Eastman Kodak Company would shortly manufacture Ozobrome in this country for sale in the United States. Until such time as the proper arrangements can be made for its production in the usual perfect manner characteristic of the other lines put out by this company, the Eastman Kodak Company will supply the material now being turned out by the Ozotype Company under Mr. Manly's supervision at their factory, Kentish Town, London, N. W. This announcement is a little premature and we trust our readers will not call upon the Eastman Kodak Company for Ozobrome material until they announce it as ready for delivery. In the meanwhile, we will supply copies of the latest Ozobrome booklet, free of charge, as announced in their advertisement on another page. Mr. Manly further advises that he hopes to be able to supply the material for the making of the solution in a dry form, thus facilitating its shipment.

Our New Address

Just as we go to press with this issue we are moving into our new office, rooms 713-715 Call Building. While the building is not at the moment in perfect condition, there is every facility for reaching our office, and we are glad to find ourselves again in the down-town district. All of our readers have seen pictures of San Francisco, and, as the Call Building figures in nearly all of these, our location requires no further description.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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Pictures for the Fourth American Salon

In our "Club Notes" department this month will be found the most important features of the new announcement of the Fourth American Photographic Salon, to be held under the auspices of the American Federation of Photographic Societies, an advance copy of which has just reached our desk. Although this announcement says that all entries from the United States must be framed or glazed, we are assured by Mr. Strayer that Pacific Coast entries forwarded by us will be accepted without such mounting or glazing, as heretofore. This implies that the Pen, Pencil and Camera Club of Wilkesburg will undertake to frame such as pass the final jury, billing such framing to the makers of such pictures. Their kindness in doing this will save intended exhibitors on this Coast the expense of framing pictures not accepted, and will also save considerable expense in the way of express charges and packing for forwarding to this office. It is hoped that our Pacific Coast workers will show their appreciation of the continued kindness extended by the Federation officers, and respond generously with samples of their best work. For obvious reasons our showing last year was not of the best, and we must redeem ourselves, now that a year has passed since the fire, which placed so many of our best workers at a disadvantage. The closing date at Wilkesburg is September 15th, necessitating the entries from this Coast reaching "Camera Craft" office in time for shipment September 1st at the latest.

Regular Monthly Meeting, P. A. of C.

The regular monthly meeting of the Photographers' Association of California was held Monday evening, May 3, at Master Painters' Hall, 1003 Fulton Street, San Francisco; President McCullagh in the chair.

Roll call of officers showed the following present: President, E. J. McCullagh; Vice President, George H. Knight; Treasurer pro tem., T. H. Wilton; and Secretary, Fayette J. Clute.

Minutes of the last meeting were read, and, after receiving a minor correction, were approved.

A communication from Treasurer Lotz was read, in which he asked that his resignation as Treasurer be accepted, as he would remain in New York until after the Eastern conventions and could, therefore, not give the

work the attention that was necessary. Under the circumstances there was no alternative, and the resignation was accepted. T. H. Wilton, Secretary pro tem., was regularly appointed to fill the unexpired term.

The speaker of the evening, Mr. Moulin, was unavoidably detained in Los Angeles, much to the disappointment of the members.

Mr. O'Connor, in behalf of his committee, asked that it be allowed to carry over their report until the next meeting; granted. The Convention Committee was not ready with a report, owing to the difficulty of getting the members together during the car strike. Its report will also be made at the next regular meeting. Matters of interest to the Association and its members were discussed at length; Messrs. Oliver, Knight, Fowzer, O'Connor, and others, taking part. The meeting then adjourned.

FAYETTE J. CLUTE, Secretary.

This Year's Volume

With this volume we will depart from our practice heretofore and continue volume fourteen throughout the year. This will make a volume of twelve numbers and allow those who wish to have the year's issues bound in one cover to do so without the inconvenience of using two indexes. This last is a matter concerning which we have had quite a number of adverse criticisms, and we trust the new arrangement will be more satisfactory to all our readers. Aside from the fact that quite a number of leading publications divide the year into two volumes, there is little to commend the practice when the size of the magazine is such that twelve numbers can be bound into a volume of convenient weight, as is the case with our own publication.

A Few Suggestions for Pictorial Photographers

By ARTHUR W. DOW, Art Director, Columbia University.

A Letter to the Wyoming Valley Camera Club.

A photograph which is **merely a record of fact** is in no sense a work of art. It has, if accurate, a scientific, historic value, but not an artistic value. The **art** lies in fine relations of line, and beauty of tone—or beauty of proportion, and beauty of massing. And these qualities must be deliberately planned by the author.

Subject. Almost anything will be interesting if expressed in art-form, i. e., in terms of beautiful line, and dark-and-light. Success in choice of subject depends upon seeing the possibilities of harmony in these terms.

Composition. First, choice of a size and proportion to fit the subject. Then, so arranging the subject within the space that there is a single interest. Center the attention upon the point of interest. Avoid confusion of interests. There should be variety and contrast, but the whole should give one simple, clear impression. The lighting involves an appreciation of beauty of dark and light massing. I should recommend a study of the charcoal drawings of William M. Hunt, the works of great etchers, Rembrandt, and Japanese Prints. Here again, though there may be many tones, whether strong in contrast or very delicate, they must unite in one impression.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Exposure in Relation to Detail

The editor of "Photography" has been giving some excellent advice on the making of "The Perfect Negative," wherein he strongly advocates the general use of the exposure meter. Dealing with the objectors, he incidentally makes the following remarks which illuminate a phase of the exposure question too often overlooked:

"But do you mean to tell us that the whole exposure problem is solved by the mere measurement of the light, when the stop and plate speed are known?" I imagine I hear some reader say. I do not. But when these factors are known and have been taken into consideration it has ceased to deserve the name of a problem. The sole remaining point to consider is the influence of the subject itself upon exposure. I have spoken of the standard or typical subject as being the one with which the photographer most often has to deal in landscape. Pictorial considerations lead us generally to select subjects in which a prominent part is played by objects in the foreground and the shadows in these objects or thrown by them must have detail or the print will appear underexposed. Here, too, I must add a caveat. 'Suppose for pictorial reasons I decide that those shadows do not require detail,' says a reader, 'your correct exposure theory is upset at once.' There is no real difference between us but only as in so many other misunderstandings a difference in the meaning we give to the word 'detail.' If there is to be no detail in the shadow let it be so focused that detail disappears or let a rough printing material be employed or even up the detail by pencil work on the negative or in any other way preferred; it does not affect the case. When we say there must be detail in the foreground shadows we mean the exposure must be such that their tone value is in keep-

ing with the rest of the picture. We call it 'detail,' because if the negative is sharply focused we can see the details in such shadows and this tells us that the exposure has been correct; but if for pictorial purposes the photographer chooses to focus so that no detail is to be seen there, he is still none the less obliged to expose for the time that would have been required to show detail had it been focused or he will get a negative the falsity of which will disgust him. There can be no doubt about this fact which I hope I shall be excused for thus emphasizing. As we usually select negatives having decided objects with shadows in the foreground and as we must expose for those shadows, the subject is generally the normal or standard one and the exposure is that which the reading of the meter gives us straight away. But there are a few exceptions and in these exceptions will be found the only possible scope for the personal factor which there exists in 'exposure.'"

Practical Hints on Photographing Heavy Machinery and Engineering Work

The preparation of large pieces of machinery for photographing is a very important part of our subject. In all government work, which, of course, has to undergo a close inspection at the hands of officials, no painting or special preparation is permitted. The natural skin of the metal, either in its rough or finished tooled condition, must be maintained. On the other hand, where ordinary commercial jobs are concerned, many engineers make a rule to bestow a good deal of preparation on their work by painting and hand cleaning in order that it may be rendered specially suitable for a photograph. Others, again, among whom it may be stated are some of the highest class firms, rigidly set their faces against any special painting

being resorted to for photographic purposes, confining their preparation merely to a careful hand cleaning and oiling by means of waste, etc., in any case quite a variety of colors are met with, ranging from black and dark olive-green down to red. Very often these surfaces partake of an enameled form when cleaned up, and frequently give some trouble when a strong top light has to be utilized.

PREPARING THE SUBJECT.

In cases where painting is permitted, a good dark grey should be employed on such subjects as crank shafts and bright metal objects. The paint should yield a good matt surface when viewed from the standpoint of the camera, and if the job appears patchy, very likely by waiting an hour or so until the paint be quite dry, these patches will disappear. The unhardened paint is easily removed after exposure.

If, as is very often the case, the entire surroundings have to be blocked out on the negative, a color should be chosen that will permit of the margins of the machine showing a good contrast against the white background of the final print. This applies particularly to small attachments on the outline of the machine, which will not show well unless painted a dark color.

Another very important matter when painting is performed is to make sure it is done just prior to the photograph being taken, so as to leave no opportunity for markings by the dirty hands of workmen. The lapse of a day or two often means that the job has to be repainted. In the case of inside portions of a machine being painted for the photographer the color can not be too white, and frequently great advantage can be gained by painting portions only of a subject, so as to bring up one part from another. White paint is used for this, but much can be done also with chalk.

THE ADVANTAGES OF CHALKING MACHINERY.

In cases where large tools that are in daily use are concerned, painting, of course, is out of the question, but the same may be dressed up in an effective manner by means of a little chalk. First of all, the makers' name, which almost invariably will be found cast either as a nameplate bolted on, or otherwise cast on some part of the tool, will call for attention. By chalking over the raised letters only and

then by means of the ball of the forefinger softening the chalk marks down, the same will be found to stand out in bold relief and appear very telling in the finished photograph. Other parts amenable to this treatment are the gearing wheels, springs, nuts, and any fine detail found in the dark portion of the object. It is really wonderful how the teeth of a gearing wheel may be made to show up in the finished photograph by means of careful preparation with a little chalk. A typical case may be mentioned. Since the application of electricity as a motive force to large lathes, etc., these gearing wheels form a very prominent part of the machine, and in some of the newest patterns are enclosed in casings or covers, and sometimes it is desired to photograph portions inside such casings without removing the entire cover, or, at least, to do so by means of the cover door being open. By chalking the parts that just appear through the open door, they at once come into view and show up well in detail in the finished photograph; otherwise they would not appear at all, being simply buried in darkness. In cases also where outlines of portions of a tool are backed up with other dark parts, and therefore do not appear with enough contrast, much may be done by chalking the edges, so that they appear with a light line against a dark background. The lighting of the machines has often to be taken as it is found by the photographer, yet it is often possible to counterbalance the excess of top light (a usual defect) by making the ground into a reflector, as the writer remembers doing on one occasion, by having a concrete floor whitewashed, and so obtaining the detail in a machine, the projecting top rail of which cast a shadow over it. Similarly whitewashing all round a stationary engine will do a lot in the way of helping matters. In some instances very dark portions in large machines can be lighted by means of small electric lamps being placed so that the light is thrown on the parts it is desired to illuminate, the lamp, of course, being out of view. As a rule, such aids are but of low value and require lengthy exposures, the light being very deceptive in its actinic value. The writer has also seen magnesium powder, with which a few grains of gunpowder was incorporated, prove of great service in lighting up hidden or dark recesses

in heavy machinery; this, of course, requires to be burned in an open pan, simply igniting same with a smoker's vesuvian stuck in the cleft of a long stick.

It often happens that makers desire a photograph of their tools as soon as possible after they are fitted up in some new shop, and before the flooring or other parts of the surroundings are in their finished condition. When this happens it is best to block out the entire floor space in the negative and print the same with a white floor, then sun down the whole portions and tone and fix as usual, and when the print is dry, by means of a parallel ruler, draw on the face of the print flag stones by means of cross lines at their proper angles. This looks well, and after the print is carefully doctored, the same is rephotographed. By this means nasty eyesores are got rid of. As to the method of working up the face of the print, the writer hopes to refer later on.

PREPARING ROUGH CASTINGS FOR PHOTOGRAPHY.

The preparation of large steel castings for the purpose of being photographed differs materially from that of ordinary finished machinery. Such pieces are often met with of great weight, in some cases running as high as forty tons, and varying in shape and dimensions after these pass through the dressing shop. They are generally photographed without any painting. In this condition the pieces are likely to appear somewhat patchy and show an abundance of chisel marks from the hands of the dressers. In the rough casting these marks will very likely, at certain angles of lighting, present a bright silvery appearance, quite unlike the dull, grey look of the rest of the piece, whilst in other portions large patches of darker colored metal will almost be sure to be present.

The writer knows of no better method of getting rid of these markings and eyesores than by forcibly throwing or dusting the moulder's sand on such parts as require to be doctored. In all dressing shops these castings will be found simply smothered in such sand, so there is no lack of supply. After the dry sand is forcibly thrown upon the parts the surface is gently dusted over with a little dry waste, and immediately a practiced eye will be satisfied with the improvement effected. Bright glaring chisel marks will be seen

to disappear, and large patches of dark metallic appearance will show up as grey as the rest of the piece. In all rough castings even at the stage where such leave the dressers' hands, there will be on the surface small holes or indents which appear in exaggerated form under side lighting. It is always advisable to doctor the more pronounced of them before exposing the plate. For this nothing is better than a little moulder's putty, which, when applied to fill up these little holes, may at first show up as dark dots against the light grey color of the casting; but another few handfuls of dry moulder's sand thrown forcibly on them soon make them vanish.

In nearly all marine and engineering castings there will be found large and small apertures with sharp edges. All moulders like these lines or sharp edges to be well shown in the photograph, a great aid being to "dress" the castings beforehand with chalk, as before stated, and then the lines can be either intensified on the negative or on the print. With too much front or too low a light these apertures will often show a lack of shadow and tend to spoil the solidity of the piece. The natural remedy is to select a better lighting, but where this can not be done an immense amount can be put in on the print. The photographer of machines soon finds that he must use brush and air-brush in the perfection of his work.

PREVENTIVES OF HALATION.

Halation will often be found difficult to prevent, especially when working right up against a strong light. If the subject be situated and a fixture under the worst possible conditions, it is often best to blind off the window with brown paper. This can be had in web of almost any size and shape, so as to cover all the glass, and in such cases the negative will require to be carefully treated and blocked out. Other cases where bad lights are situated at long distances in front can generally be treated in some way or other by boarding up or hanging shields from a crane, etc., so that the evil is prevented. Prevention is always better than cure, and much may be done by choosing the hour for exposure when the direct light is not present. As to backing the plate, the writer's experience is that bitumen dissolved in chloroform is the best to employ, and when this

is used the plate is developed without previously removing the backing. A little practice will soon make a regular worker quite at home in developing after this method.

The working up of the print preparatory to rephotographing it is, perhaps, the most difficult of all operations connected with this class of work. It takes some experience to be an adept at it, but the air-brush has placed a new power in the photographer's hands, and all high-class block makers know the value to place upon such method of working up a photograph. No doubt quite a lot can be done by the brush alone, but for really high-class finish on highly glazed prints, which are so much in request for fine detail in process work, only the best results can be obtained by an expert in the use of the air-brush.

T. NEWTON ARMSTRONG.

Red Chalk Bromides

In the March issue I published a note to the effect that a toned bromide (either by the hypo method or direct sulphur toning) would change to a pure red chalk if immersed in a sulphocyanide gold bath: gold, one grain; sulphocyanide, ten grains; water, ten ounces. Since then an inquiry from a subscriber caused me to personally investigate the process and I am much pleased with the result.

The action starts directly the print is immersed and proceeds somewhat slowly until a pure red chalk is attained. In some of the prints I tried it on, the tint was inclined to a crimson tone, and in one instance a slight staining of the high lights occurred. I am inclined to think this latter effect was due to imperfect washing. Some vignetted children and female heads gave perfectly charming results. In my estimation the value of the process lies more in the intermediate rather than in the final tones. In many cases the brown obtained by toning bromides is unpleasantly yellow, a result that in some way seems to be dependent more on the nature of the negative than on the toning solution. By subjecting bromides of this description to the sulphocyanide bath for a short while the yellow tone can be very pleasantly changed. The tints yielded by this process are very much purer and pleasanter than those given by the ferri-

cyanide and copper bath. I know nothing of the permanency of these tones. That must be determined by time, but I would strongly advise bromide workers to do a little experimenting.

Copper Toning of Bromides and Transparencies

The above reminds me of an article by Professor Namias in the May "Photographische Korrespondenz." He points out that the impurity of the red in copper-toned bromides is due to the presence of silver ferrocyanide. He obtains pure reds in the following manner: He first makes separate solutions of copper sulphate, sodium citrate, and potassium ferrocyanide, each of ten per cent strength. To 600 parts of the first he adds 280 of the second and 70 of the third. In this the bromide is toned the usual brownish red. It is then removed to a bath consisting of:

Copper sulphate	50 grams
Salt	20 grams
Water	1000 grams
Hydrochloric acid	10 grams

In five minutes or less the color becomes a pure red. It is then well washed and the silver chloride removed by immersion in a ten per cent hypo bath. The color is declared by Namias to be perfectly unchanged by direct sunshine.

Chemical Fog on Unexposed Plates

In "Apollo" the Lumiere Brothers and A. Seyervitz publish the results of experimental work on the above subject. They commence with the statement that if a normally-exposed and an unexposed plate bearing the same emulsion be simultaneously developed in the same bath, the unexposed plate will show fog not present on the exposed plate. This fog they found to be practically nothing for the first minute, very plain after ten minutes and then to increase rapidly. It is increased by heat and occurs equally with an Amidol and the Alkaline developers. The question as to why an exposed plate does not develop fog is answered by the experimenters with the explanation that the potassium bromide liberated in the process of reduction acts as a restrainer, and that when an unexposed plate is developed in the presence of potassium bromide, no fogging occurs.

The Amateur and His Troubles

By FAYETTE J. CLUTE

Retouching at Night

A correspondent writes to ask how best to arrange to do a little retouching during the evening hours. Using an ordinary retouching stand, a good lamp should be placed at some little distance, with a globular water bottle filled with water, so located that the flame, the center of the globular mass of water, and the center of the negative in the easel, are all in line. It will be found that a small, bright patch of light falls upon the negative, much the same as that obtained and employed by wood engravers in the past, when there was a special glass water globe made for their purpose. I might say, further, that a little copper sulphate added to the water in the globe will remove any disagreeable yellowness that may be in the light, or that may be caused by yellow-stained pyro negatives.

Ferrous Oxalate Developer

A correspondent in Illinois has been advised to use a ferrous oxalate developer to blacken his negatives after bleaching for intensification. The only formula he has found for this developer seems rather complicated, and he wants a simpler form. All that he need do is to make up a saturated solution of both neutral oxalate of potash and protosulphate of iron. Then take six ounces of the first and add to it one ounce of the latter, always adding the iron solution to the oxalate, to prevent precipitation.

Uneven Intensification

The same correspondent complains that spots, evidently caused by greasy fingers, fail to intensify evenly with the other portions of the negative. He has, no doubt, located the trouble correctly. All that is necessary is to give the negatives a bath of dilute ammonia, swabbing its surface

with a tuft of cotton, to assist the removal of the grease. About a drachm of the stronger ammonia to six ounces of water is a good proportion.

Individual Masks

I called in on a professional the other day, one who does a great deal of commercial view work, which he turns out in the form of albums. All his negatives are $6\frac{1}{2} \times 8\frac{1}{2}$, but he confines himself to no particular size or shape of print; and yet each print has a neat, white or black margin around the edge. The way he does it is quite easy. He keeps on hand some cheap printing-out paper, seconds, when obtainable. The first print from each negative is made on this, printing deep enough for a good proof. This gives an excellent means of determining just what part of the picture is required in the finished print, by employing the usual two L-shaped pieces of cards and marking the corners decided upon with a small pencil dot. Next, with a sharp knife and a ruler, using a piece of zinc as a cutting surface, these center pieces are cut out, taking care to see that the corners are square and clean. There is a slight trick in cutting these openings that is worth mentioning: With the ruler under the left hand the point of the knife is used to make a slight puncture at the upper right-hand corner of the portion to be cut out, as the print lies right way up on the zinc. Then the point of the knife is inserted in the pencil dot at the lower right-hand corner and held there while the further end of the ruler is brought to the first puncture and its near end swung against the blade of the knife as it is held in the lower or last puncture made. When satisfied that the ruler lies as it should, the knife point is removed from its position, inserted in the first or further puncture and the two connected by a clean cut. The print is given

a quarter turn and the process repeated, and so on for each side, except that there is no further necessity of indicating the position of the further end of each cut. A little practice makes this work quite easy. This gives our worker a mask and a center piece that requires only being sunned enough to be opaque when toned. If a white-bordered print is required, it is only necessary to insert the mask, darkened side next the negative, and then place the paper in position. Both will fall naturally into place, the relative position of the mask always being correct. If a dark border is required, the outside mask is placed in position on a sheet of clear glass, instead of the negative, with the cut-out piece in place. Then the former is removed and a sheet of printing paper placed in position without disturbing the center or cut-out mask, and an exposure given that will insure a black border. The printing of the picture follows in the regular way, the negative being substituted for the clear glass. My professional friend uses a white border on prints when it is desired to add to the values of the blacks, and a black border when it is thought that the lights need a slight intensification of effect. Using both border mask and center cut-out alternately, he is enabled to secure tinted borders, instead of the dead black, and should the register not be perfect the picture itself has a pleasing, raised effect, such as the old portrait photographers secured with their oval masks and disks. When using the center cut-out mask it is, of course, necessary to employ the piece of clear glass, as advised. The strong point of this plan lies in the fact that each negative has its own individual mask, that goes into the envelope with it, always ready for any future needs, while another recommendation lies in the fact that it is so easy to determine and locate the corners of the most pleasing form and size of print obtainable from any given negative.

More Use for the Lens Shade

In a recent issue I tried to suggest that the employment of a lens covering a much larger plate than the one used might result in an unexpected source of fog, or at least a slight degradation of the image. A

remedy was advised in the form of a lens shade. One of our local workers, in talking the matter over, said that he had found the use of a lens shade extending well in front of the combination, a decided advantage in telephoto work. While he was undecided as to just why his method of screening the lens proved so advantageous, he was certain of the improved results. I have recently seen something on this subject in one of the foreign publications, but cannot locate it at the moment. The blame was laid at the door of internal reflections, due to the long tube of the lens, if I remember rightly. My friend was led to try the experiment by reasoning in this way: An ordinary lens, working at its best, is capable of rendering detail as clear, if not a trifle clearer, than it appears to the eye, and a telephoto combination should do the same to a slight extent. While a telephoto subject certainly had the disadvantage of an enormous amount of intervening atmosphere, the results always showed even more loss of detail and clearness than the eye and a telescope indicated. For that reason he believed the telephoto combination was not working at its best, and the long shade with a rectangular opening just sufficient to allow the plate to be covered, was tried.

Lens Stop Values

In this department, in the November number, I gave a rule for the conversion of f values into those of the U. S. system. While the rule given was correct, an example of its working was given, with an answer that was wrong, through one of those errors which will sometimes creep into the most carefully-written manuscript, and I regret to say that available time does not always permit of this monthly talk being turned out as well finished as it might. Several correspondents availed themselves of the opportunity of calling my attention to the slip, and, while I regret, of course, the slight mistake, I was greatly pleased to find that so many of the subscribers evidently read this part of the magazine quite closely. Dr. E. H. Buffum, of Fair Oaks, California, in mentioning the matter, went on to say that his method of determining comparative values of the U. S. and F. systems is as follows: "To convert U. S. to F system, extract

square root (approximate will do), and multiply results by four:

"As 32 U. S. = 22.6 F: $\sqrt{32} = 5.65$, $5.65 \times 4 = 22.60$. Approximately $\sqrt{32} = 5\frac{1}{2}$; $5\frac{1}{2} \times 4 = 22$. To convert F values to U. S.; Divide by four and square the quotient; the reverse of the above. As 32 F = 64 U. S.: $32 \div 4 = 8$, $8^2 = 64$. Therefore, I have printed on the dial of my actinometer the formulæ: $4\sqrt{U.S.} = F$ or $(\frac{F}{4})^2 = U.S.$ "

This plan of Dr. Buffum's makes the work susceptible to mental calculation, particularly as the exact square root is not important in the first formula. Where relative exactness is required, and the square root involves a decimal, there is little to choose between the rule originally given and the one suggested by the Doctor. His, however, is more convenient for ready calculation, and permits of approximation being allowed to simplify the matter without endangering the usefulness of the results for all practical purposes.

Coffee Tinted Paper

A subscriber recently wrote me asking for the address of a couple of paper dealers in this city from whom he would be likely to secure some good paper of a light coffee tint. It seems that he has been copying some old engravings and using the kalotype process, but he desires to make the prints on a paper that will give him a close imitation of the original prints or engravings. Really, it has been quite a surprise to me to find a worker who has not come across the very old dodge of soaking the print in a solution of coffee to secure the desired tint. All that is required is a strong solution that has been well filtered. When the desired tint has been secured by immersion, a good washing should be given and that is all there is to the process. The washing will slightly reduce the tint and the remaining color is quite permanent.

Hydrometer Readings

A correspondent in Michigan asks if a solution of carbonate of soda testing forty is composed by weight in the same way as a like solution of sulphite of soda. To begin with, the makers of these formulæ calling for a solution testing a certain hydrometer degree, have in mind, not the

scientific instrument intended to register specific gravity, but a special cheap form of hydrometer originally constructed so that every degree on the scale indicated a grain of silver in the silver solution used in wet plate work. Four ounces of sodium carbonate crystals in sixteen ounces of water will test forty with this simple hydrometer; the same amount of sulphite of soda crystals in a like amount of water will test sixty. Three ounces will test forty-five; two ounces, thirty, and, of course, one ounce will test fifteen. Returning to the carbonate, which tested forty for four ounces of the salt in sixteen ounces of water, three ounces of the crystals in a like amount of water will test thirty; two ounces, twenty, and so on.

Newspaper Markings

A correspondent has returned from the Hawaiian Islands with a large number of exposed plates which he was so ill advised as to wrap singly in pieces of newspaper. On developing a few of these plates there is a clearly defined image of the printing which was in contact with the film. He desires to learn if there is any way in which the remainder of the lot may be treated so as to prevent this trouble. A few years ago the "Photographische Rundschau" claimed that the difficulty could be overcome by bathing the undeveloped plates in a two per cent. solution of acetic acid, well washing with water and then giving them an alcohol bath. The proposed cure is at least worthy of a trial, and as the effect complained of is no doubt due to the accelerating effect of the turpentine which plays so large a part in the composition of printing ink, the treatment looks very promising.

Bargain List No. 24

We are just in receipt of the latest list, sixty-four pages of photographic supplies, comprising Golsen's Bargain List No. 24. It is well illustrated and should prove of great interest to every photographer in search of bargains in lenses, cameras, outfits and all the innumerable articles that go to make up the requirements of the amateur and professional photographer. A copy will be sent free on request. Address: Ralph J. Golsen, 58-60 Wabash Avenue, Chicago, Illinois.

Club Notes

The Fourth American Salon

The Fourth American Photographic Salon will exhibit during 1907 and 1908 as the principal American cities, under the auspices of the American Federation of Photographic Societies.

Following is a list of the officers:

President, R. L. Sleeth, Jr.; First Vice-President, William T. Knox; Second Vice-President, Chas. E. Fairman; Secretary, Waldo E. Strayer; Treasurer, William H. Phillips; Salon Director, Louis Fleckenstein, and Historian, Daniel Baker. The Preliminary Jury is composed of the following photographers: William H. Zerbe, Chairman; William T. Knox, Dwight A. Davis, John Chislett, Winfield Scott Clime, D. H. Brookins, Frank G. Wood, William H. Phillips, H. W. Minns, R. E. Weeks, R. L. Wadhams, and R. L. Sleeth, Jr. The Final Jury of Painters is not yet chosen.

The Salon Committee is composed of Louis Fleckenstein, Director; Waldo E. Strayer, C. F. Potter, Jr., S. C. Bullencamp, E. G. Fountain, C. C. Taylor, A. Doerflinger, R. E. Weeks, J. H. Field, William H. Phillips, F. Dundas Todd, William H. Zerbe, George W. Beatty, H. M. Seitzsinger, Fayette J. Clute, John Chislett, and R. L. Sleeth, Jr.

Entries may be forwarded to any of the following addresses: Fayette J. Clute, care "Camera Craft," San Francisco, California; Louis Fleckenstein, Faribault, Minnesota; George B. Goodwin, Wisconsin Camera Club, Milwaukee, Wisconsin; R. E. Weeks, Chicago Camera Club, Chicago, Illinois; C. C. Taylor, Toledo Camera Club, Toledo, Ohio; E. G. Fountain, 203 Chamber of Commerce, Cleveland, Ohio; William H. Zerbe, 345 Spruce Street, Richmond Hill, L. I., N. Y.; or direct to The Pen, Pencil and Camera Club, 1120 Wood Street, Wilkinsburg, Pa. American entries must be framed or glazed. Failure to comply with this condition will prevent pictures from being submitted to the juries.

Foreign entries are to be sent mounted or unmounted, but not framed. Those

from Great Britain should be sent to arrive by August 15th, 1907, to H. Snowden Ward, 6 Farringdon Avenue, London, E. C., England, and should be marked "For American Photographic Salon." Those from Italy, to Alfredo Ornano, 21 Via Caffaro, Genoa, Italy, to arrive in his hands by August 15th, 1907, and should be marked "For American Photographic Salon." Those from Norway, Sweden and Denmark, to Copenhagen (Denmark) Camera Club, before August 15th, 1907, and should be marked "For American Photographic Salon." Entries from Australia, to A. Hill Griffiths, 66 King Street, Sydney, N. S. W., to arrive in his hands by August 1st, 1907, and should be marked "For American Photographic Salon." Entries from all other countries should be sent direct to The Pen, Pencil and Camera Club, 1120 Wood Street, Wilkinsburg, Pa., U. S. A., marked "For American Photographic Salon, in bond to Pittsburg," and should arrive in Pittsburg Custom House by September 1st, 1907. Accepted foreign entries will be framed at the expense of the Federation.

Conditions:—1: Entries must be in the hands of the Pen, Pencil and Camera Club, 1120 Wood Street, Wilkinsburg, Pa., U. S. A., by noon of September 15th, 1907. The early closing of entries, this year, is necessitated by the fact that new cities are coming into the Federation, and the circuit will be longer than heretofore. 2: There will be no invited work. All prints will be submitted to the preliminary jury. 3: No work entered for former American Salons will be eligible. 4: Entries must be suitably framed or glazed, and the title, with name and address of entrant plainly written on back of each—except in case of foreign contributors. 5: A list of titles must be sent separately by mail, giving name and address of sender, price of each, if for sale, and special instructions, if any. This list should be in the hands of the Secretary a few days before the closing of entries. 6: All work, mounting and framing excepted, must be

done by entrant. Sign names of collaborators. 7: Pictures will be returned as soon as practicable after the close of the exhibition. 8: Each contributor must pay the expense of transportation to and from the exhibition. 9: A commission of 15 per cent. will be charged upon each sale by the various clubs holding the Salon. 10: A catalogue will be forwarded to each exhibitor.

The Fourth Salon, from present prospects, will surpass all others, as nearly one thousand new names have been added to the mailing list. The Secretary is in position to give prompt attention to all inquiries and communications.

WALDO E. STRAYER, Sec'y,
1120 Wood Street,
Wilkesburg, Pa., U. S. A.

Proposed Monument to the Memory of the Late James Inglis

Pirie MacDonald, at the end of the year 1896, suggested to F. Dundas Todd that he should endeavor to get James Inglis to write a series of articles on lighting for the benefit of the professional photographers of this continent. Mr. Todd placed the matter before Mr. Inglis, and he at once gladly assented, because he felt that it was the duty of every man in any profession to do the best he could to help those who were earning their living in it. A great many people never realize what they owe to the profession that has given them an opportunity to earn a living, but James Inglis realized this to the full, and he wrote his articles and presented them to the fraternity without price; nay more, when he found they were creating considerable stir he very gladly at his own expense went to many conventions and demonstrated his ideas.

James Inglis was undoubtedly the father of the great pictorial movement that influences the professional photographers of this country today, and this art movement is the grand old man's greatest monument, and he personally, were he alive, would care for no other recognition.

Pirie MacDonald and Mr. Todd were discussing this idea a few weeks ago when he remarked that, though this was undoubtedly true, there was another side, and he felt that the photographers of

this country were under obligation to the memory of James Inglis, and that since it was at his suggestion the articles were written he felt it was the proper thing for him to make another, and it was this, that since Mr. Todd had been so closely associated with Mr. Inglis in the propaganda of artistic lighting it was but fitting that Mr. Todd should take charge of a movement to erect a suitable memorial over Mr. Inglis' grave. He proposed that there be given an opportunity for every professional photographer in this country who felt that he had been benefited by the teachings of Mr. Inglis to contribute the sum of one dollar toward a monument, and that no larger sum be accepted from anybody, and he forthwith placed in Mr. Todd's hands the first contribution. It need scarcely be said that Mr. Todd gladly undertook the duty thus offered him.

The first step was to secure the consent of Mrs. Inglis and the children, which we are glad to say was very willingly granted.

It is not intended either by Mr. MacDonald or Mr. Todd that an elaborate monument should be erected, for they feel that a simple stone or tablet bearing a few well chosen words will be sufficient. It will be the sentiment behind the act that will count, not the act itself. They consider that from one to two hundred dollars will be enough, and they invite prompt contributions of one dollar each.

All contributions should be forwarded to F. Dundas Todd, Box 82, Glencoe, Illinois.

Photo-Secession Exhibition

Under date of May 17th, Mr. Stieglitz announces as follows:

"Fellow Members: The third series of exhibitions held at the Little Galleries of the Photo-Secession will be open in November with the Annual Members' Exhibition. Every member is entitled to be represented by one print at least. Prints should preferably not be framed, but mounted on 14x22 mounts. All prints intended for this exhibition should be sent express prepaid or by mail to Photo-Secession, 201 Fifth Avenue, New York; or, Alfred Stieglitz, care of Geo. F. Ol-

3 East Twenty-eighth Street, New York. Send to no other address." Mr. Stieglitz adds: "Exhibitions of foreign and domestic pictures, not necessarily photographic, will follow."

Wisconsin Camera Club Program

Tuesday, June 4th:—Lecture by Alexander Mueller; Problems; Decorative Landscapes; and Figure Study of Groups. Tuesday, June 11th:—Lecture by E. M. Pierce, on Development. Tuesday, June 18th:—Lantern Slide Exhibit. Tuesday, June 25th:—Rummage Sale. All meetings at 8:00 p. m.

Sixth Annual Exhibition, Wyoming Valley Camera Club

We are just in receipt of a catalogue of this successful exhibition that is from year to year becoming more and more a factor in the progress of pictorial photography. The exhibition was held at Wilkesbarre, Pennsylvania, May 8th to 11th, inclusive, with two hundred and seventy-nine frames from sixty-nine workers. The jury of selection was composed of Arthur W. Dow, Columbia University; Edward Penfield, art staff, "Harper's"; Wm. H. Walker, art staff "Life," and Alvin Langdon Coburn. This jury divided the pictures into the following classes: Portrait, figure, and landscape. In the portrait class they recommended as the best in the order named: Portrait, Kenneth Alexander; "Baby John," Burton Stanley Ruger; "Little Jack Horner," W. and G. Parrish; and "Sewing," C. F. Clarke. In the figure class: "A Rainy Day," D. H. Brookins; Illustration of Rubaiyat No. 5, Adelaide Hanscom; "From Ship to Dock House," A. W. Engle; Illustration of Rubaiyat No. 2, Adelaide Hanscom. In the landscape class: "The Crossing—Venice," William H. Phillips; "In Turkish Waters," William H. Phillips; "The Toilers' Highway," J. G. Ruggles; and "Study in Snow Textures," Lee Russell. The judges added that if there were three to be chosen they would suggest: Portrait, Kenneth Alexander; "The Crossing—Venice," William H. Phillips, and "A Rainy Day," D. H. Brookins, in the order last named.

In Mr. Dow's letter he offered some very valuable suggestions in closing, and we have taken the liberty of giving them a wider circulation by reprinting them in the body of the magazine this month. The Wyoming Valley Camera Club is to be congratulated upon the success of this, their sixth exhibition, and they are to be commended for the confidence which they have inspired in their efforts by the selection of such a particularly happy combination in their jury.

Chicago Camera Club Bulletin

May 23rd—General Criticism of Prints by Members.—In this connection it is proposed to follow our plan as adopted with our Interchange Lantern Slide exhibits. We will take each print separately and endeavor to make suggestions which will add to or improve it. Please bring any prints you may have that you are "not just satisfied with." May 30th—There will be no meeting on this evening, but, in place, we will have our Annual Outing during the day. It is proposed to take those who can accompany our expedition over the routes followed by Father Marquette. We will be able to secure some very interesting views on this trip. Particulars will be posted on the bulletin board in the club rooms. June 6th—Our usual set of Interchange Slides. Come and talk them over with us. June 13th—Annual meeting of the club. See notice below, and make it a point to be present.

Special attention is called to our plan of "One Man" exhibits, to be hung during the next few weeks. The work of our D. H. Brookins is now on our walls. The Photo-Pictorialist Exhibit is now hung in the Art Institute, and will remain for the balance of this month. Our members should see this exhibit, as it is under the auspices of this Club, and is good.

CLARENCE B. HALE, Secretary.

Notice is hereby given of the annual meeting of the Chicago Camera Club, as provided under Section 1 of Article II of the By-Laws, to be held in the Club rooms in the Northwestern University Building, Thursday evening, June 13th, 1907, at 8 o'clock, sharp.

CLARENCE B. HALE, Secretary,
F. M. TUCKERMAN, President.

Our Book Shelf

By FAYETTE J. CLUTE

"Highlights"

The above is the title of a handsome little trade publication gotten out by C. W. Parker & Company, of Seattle, Washington. The first issue bears the date of May and contains much news and other matter of interest to the fraternity in the Northwest. We wish the publication all success and can compliment its publishers on the appearance of the first issue.

A Camping Luxury

For the brief trip, the "day in the woods," a refrigerator basket is a delightful luxury. Such a basket costs from \$2.50 to \$3.50, according to size. It has a body of strong rattan, a metal lining which is guaranteed not to rust, an asbestos interlining. Its bottom is dressed with mineral paint to make it proof against dampness. The ice compartment is removable, so you can have an excellent picnic basket at any time that you do not care to carry ice. But the pleasure of taking out a dainty lunch, the butter of which is firm, the cream of which is sweet, is worth the expense on a hot day.—The Travel Magazine.

"The Complete Photographer"

There was not, up to the publication of this book, a really comprehensive work on the art of photography. Many books had appeared in this field, but they were, for the most part, scientific treatises upon the principles underlying the practice, and elaborated instruction manuals—"how-to-do" books, in short.

Photographers everywhere, amateur and expert, have cause, therefore, to welcome this new edition of R. Child Bayley's sumptuous contribution to the literature of the art. None can compare with it in scope and thoroughness, and none combines so many advantages. Mr. Bayley is the editor of "Photography," the widely-known London

photographic magazine, and he is credited with being one of the greatest living authorities on his subject.

The work includes:

An authoritative history of photography, its development and progress from its earliest beginnings to the present day; an exhaustive modern demonstration of every phase of photography—landscape, portraiture, pictorial, architectural, scientific; a perfect guide to the correct application of formulae to photography, which makes it a thoroughly practical working manual for the beginner and the professional; a model exposition of the camera, with valuable hints as to its handling; of the lens in principle, the lens in use, with advice on the selection of a lens, and a lucid and valuable discussion on the comparative merits of plates and films, their rapidity, halation and its causes, and the like.

The book contains, also, an illuminating chapter on each of the following subjects: Exposure, Development, Intensification and Reduction, The Print, Platinum Printing, The Drawing of a Photograph, The Carbon Process, Bromide Papers, Dodging and "Faking," The Dark Room, The Hand Camera, Pinhole Photography, Orthochromatic and Three-color Photography, Enlarging, Reducing, Slide-making, Exhibitions and Societies, and Photography and the Printing Press. Every camera enthusiast will find "The Complete Photographer" indispensable. Even those who do not develop or print their own pictures will want to have it for its practical field suggestions. The book will be treasured, too, for the superb series of illustrations which represent the crowning efforts of photography in every field, from the subtlest portraiture to the most ideal landscape. Printed in England and imported to this country by McClure, Phillips & Co., New York. Carried, in San Francisco, by Hirsch & Kaiser, 1757 Fillmore Street. Price, \$3.50.

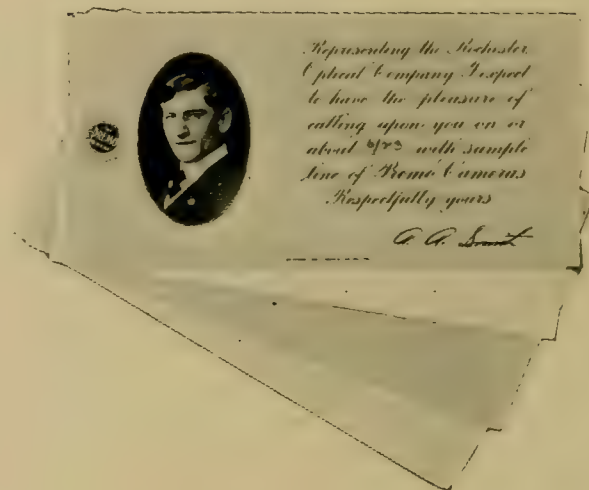
Notes and Comment

Resuming Business

The many old friends and patrons of Lange, Schooley & Company will be pleased to learn that the business is to be resumed under the name of The Schooley Manufacturing Company, with offices at 683 Bryant Street, this city. Morris A. Griesmer has assumed the presidency of the new firm, Mr. Lange having gone into another line of business directly after the fire. The new factory is better equipped than was the old one, and the necessity of awaiting the completion of special machinery is believed will more than offset the loss attending the delay in resuming business. They will shortly be prepared to send out their samples of new lines of photographic cards and folders, and have already secured the assurance of many representative dealers that their lines will be given every opportunity of proving the merit which Mr. Schooley's long experience and enviable reputation guarantees. We would suggest that professional photographers and dealers in this territory send them their names and addresses, in order that they may be placed on the mailing list for samples and prices as they may be issued.

Heralding the Coming

Herewith we reproduce the latest innovation of the sales department of the Rochester Optical Company. The particular one shown advises us that the genial A. A. Smith will soon pay our new office a visit, and from the number of these neat little blotters in evidence as we visit the offices of the local dealers, they will all be favored in the same way. And this word, favored, is used in no unthinking manner, let us say. Mr. Smith has a host of friends, good friends, wherever his bright and genial personality has been introduced upon the scene, and that means in about every stock house in this territory. We would add further that the high absorbent efficiency of the blotters,



used in connection with Mr. Smith's portrait and his announced visit, means nothing.

A Well-equipped Factory

We recently paid a visit to the new factory of the California Card Manufacturing Company, and were surprised to find it so fully equipped and so well under way with its vast amount of business. Both Mr. Adam and Mr. Helmquest are well known to the trade on this Coast, in Mexico and other foreign countries, through their long association with The Stuparich Manufacturing Company, which concern the new company has succeeded. Before July 1st their new plant will have greater facilities than the one of their predecessor, and orders will be shipped very promptly. The leading dealers are supplied with their full line of attractive and varied new samples, and we would advise that the line be examined.

A New Graflex Camera

Folmer & Schwing Company, of Rochester, announce a new Graflex, called the Press Graflex, which, as its name implies, is designed for the press photographer. The Press Graflex is made in the 5x7 size only, and is of the non-reversible type. It is fitted with two tripod screw plates, and may be used on a tripod in either a horizontal or vertical position. The telescopic side arms are made long enough to

give fifteen inches focal capacity, and the new Press focal plane shutter with which it is fitted, carries the curtain roller back of the focal plane. This allows the camera to accommodate lenses of from seven to fourteen inches equivalent focus, permitting of a wide range of lenses for fine situations, or the use of long focus lenses for track or field work. The minimum focus of lens which the Press Graflex will take is seven inches.

The tension roller is operated by a clock spring, which may be speeded up to one-fifteen-hundredth part of a second, or lowered to one-fifth of a sec-



ond. Slow instantaneous exposures can be made by setting the curtain aperture index at "O," and handling the camera the same as for regular instantaneous work, as the mirror opens the exposure as it swings upward out of the cone of light, automatically tripping the curtain, which terminates the exposure. Time exposures of any duration can also be made.

The focusing hood is large and spacious, giving a full view of the field, with a complete eye shield fitting the contour of the face, permitting the operator to view the image on the focusing screen, right side up, with the greatest of ease. The camera is opened ready for focusing by pressing a small lever placed near the end of the

handle, conveniently near the right thumb, when carrying the camera. The cover operating the focusing hood is likewise opened automatically, and the construction of this cover is such that the camera may be carried ready for use while it is open. The price of the camera, without lens, is \$110.00. A complete descriptive price list will be mailed by the makers, on request.

Hirsch & Kaiser's New Catalogue

We have just had the pleasure of looking through one of these elegant new catalogues, gotten out by this progressive firm, Hirsch & Kaiser, of 1757 Fillmore Street, this city. It is certainly a model catalogue, and one that should be in the hands of every photographer on the Pacific Coast. It is handsomely printed, fully illustrated, and covers everything in the way of desirable photographic supplies at present obtainable. The firm has such a large business and has so many special lines which it carries exclusively, that a catalogue of their goods at this date is sure to be a book of the greatest value to any one wishing to be informed on the newest and best that is obtainable. We would advise all our Pacific Coast readers to send for a copy before the supply is exhausted. The opportunity to secure such a handsome catalogue of such completeness, particularly of goods so quickly obtainable and so abundant in variety, is not often presented.

Two Good Lenses

By virtue of its superior quality the Bausch & Lomb-Zeiss Portrait Unar has attained a commanding position in the photographic world, and its popularity increases as it becomes more widely known. Its fine optical corrections, together with its adjustable systems for securing diffusion, make it a wonderful all-around lens suitable for busts, three-quarter and full figures, and also for groups. Nothing better could be wished for by the photographer who wants a single lens for all his work.

Another lens of remarkable range is the Bausch & Lomb-Zeiss Convertible Protar,

series VIIa, which might well be used by photographers who do outdoor work and home portraiture. The single lenses of this convertible series are adapted for instantaneous outdoor work under favorable light conditions, for landscapes, groups and large heads, while the doublet is adapted for groups and architectural work.

As an example of what this lens will do in the hands of a photographer, we cite the fact that it was used by W. S. Lively in making the two portraits entitled "Son of the Mountains," and "Study of an Old Man." The former won the grand prize in open-to-world class, April 10, 1907, of the Tri-State Association of Photographers, and the grand prize in open-to-world class, Chicago, May 9, 1907. The latter was selected to hang in the Daguerre Memorial Building, at Winona Lake, Indiana.

An Interesting Catalogue from Germany

We are just in receipt of a handsome catalogue of photographic goods manufactured and marketed by Johann Riedl, letter-box 34, Goerlitz, Germany. The catalogue shows many utilities in addition to cameras, lenses and shutters, and the text and prices are given in German, French, English and Italian, making it most instructive and, we might add, entertaining. Speaking of their efficient "Gorlicia" magnesium lamp, the catalogue announces: "Consequently to the favorable construction of the lamp, the photographer having prepared everything for the taking, will have time to hurry to the photographic spot, for being taken himself as well." Mr. Riedl advises us in a letter under date of 1st, that the book is being dispatched of expense, and it is certainly well worth the five-cent stamp required on a letter of request from those interested in the best goods of German make.

Souvenir Postal Cards

America's greatest newspaper *The Chicago Tribune*, says in an editorial published Saturday, March 9, 1907:

"The wide-spread interest in the souvenir postal card industry is illustrated every day by observation of the crowd to be seen in front of every window where such things are exhibited or in the stores at the postal card counters. It is evident that millions are being printed, and the presumption is that millions are being sold.

Every summer resort or place of scenic or historic interest has its special cards. Many hotels furnish a menu card which has a perforated card attached. Restaurants and other places of business give them out as advertisements, and thousands of people collect them as others do postage stamps or coins.

It has been found necessary to make a number of special regulations. There has to be some supervision so that improperly suggestive cards may not be mailed. The postal authorities have recently issued an order limiting the size of the cards, prohibiting the use of those which are folded, and particularly condemning those which are covered with bits of glass or mica, from which carriers in several cities have received wounds which have threatened blood poisoning.

It would be interesting to know how the revenues of the postoffice and the volume of the mail have been increased by the development of the souvenir postal card business. There is little doubt that large figures would be needed. It is quite likely, too, that the decision of the postoffice department to issue stamp books containing twenty-four 1 cent stamps, these to retail for a quarter is connected with the increased demand for stamps of this denomination for use on the postal cards. Post cards will be popular for a long time, notably in connection with the better class of cards which show pictures of famous places, persons, or scenes. Many travelers have taken pleasure in sending a word of greeting to distant friends through the medium of a postal card who would not attempt the more tedious task of writing letters to all whom they might wish to remember."

This we quote as particularly timely in connection with the two-page advertisement of the American Photocolortype Company of Chicago, which will be found in this issue. So many of our readers have asked concerning the possibility of securing such work that we are pleased to be able to place this announcement before our readers.

The "Postal Monthly"

The "Postal Monthly" published by Curt Teich & Co., Chicago, contains a complete list of all the new and up-to-date post cards published, and quotes their lowest prices. It will keep you posted on all the latest post card news, and no dealer can afford to be without it. If you have not received a copy, send your name and address, and you will receive one free by return mail.

CAMERA CRAFT



San Francisco, California

Insist on Correct Color Values

If they are in your negative you
will get them by making
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The Anthony & Scovill Co.
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AT THE FOUNTAIN
By MRS. W. W. PEARCE

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. XIV.

SAN FRANCISCO, CALIFORNIA, JULY, 1907.

No. 7

The Camera Club's Yosemite Outing

By ALBERT LEBRETON, President C. C. C.



ON GLACIER POINT, 3,254 FEET ABOVE
THE VALLEY

By R. A. TROYER

Illustrated by the members of the California Camera Club, with pictures secured on the trip

MERRY party of California Camera Club members, numbering eighty, one-fifth of the entire membership, left on a "special" June 2d for a two weeks' stay in the Yosemite Valley. This large attendance can, no doubt, be attributed to the fact that this was the first extended outing of the Club since the great unscheduled outing of April 18, 1906, when we seemed to be headed for nowhere in particular, except as our overworked nerves suggested that "bourne from whence no traveler returns." That outing cost us many simoleons. The Yosemite one at least gave us our money's worth, for everyone returned well pleased. We had a few days of stormy weather, it is true, giving us unexpected and highly appreciated opportunities for snow scenes,

but then photographers are used to exposures; and, by the way, speaking of the latter, we obtained something like fifteen hundred negatives to replace those lost in the great fire.

It is not my intention to dwell on personal incidents of the trip. There were many interesting ones, of course—some serious, some amusing, some pathetic, and, as there was considerable walking indulged in, we might add, some peripatetic. A narrative of the trip itself will interest club members more than the great number of "Camera Craft" readers, and therefore may better be reserved for a purely club gathering.

Nor is it my intention to describe the Yosemite Valley and its many varied and attractive features. Prose writers have reveled in encomiums on the Merced River, Mirror Lake, the many exceptionally beautiful



ON ARRIVAL AT EL PORTAL

By CHARLES WEIDNER

waterfalls, the awe-inspiring heights. Probably no section of picturesque America has afforded more themes for painter and poet. I will not attempt "to throw a perfume on the violet, or add another hue unto the rainbow, or with taper-light to seek the beauteous eye of heaven to garnish." I will even resist the temptation to look into my friend Foley's most excellent Guide Book, or any guide book whatsoever, for fear that I may be led to give dates and figures as to discoveries, altitudes, and the like. I will simply attempt to present to the reader some matters hitherto but slightly touched upon, and will more particularly speak of the new road into the Valley. At Merced, visitors leave the Southern Pacific or the Santa Fe Railroad and take observation cars on this new road and enjoy sixty miles of an ever-varying panorama of frowning crags, imposing mountains, in connection with the swiftly flowing waters of the beautiful Merced River, broken here and there by



IN THE SNOW AT GLACIER POINT

By CHARLES WEIDNER

surging rapids. The California Camera Club was the first large party by way of the new Yosemite Valley Railroad recently completed from Merced to El Portal, which now lands tourists at the gateway of the valley. To reach the Sentinel Hotel and Yosemite Postoffice requires but a short drive of three hours. El Portal was as yet scarcely fitted for so large an invasion at the time. Passing there on our return, we found a decided change and Manager Sells can now accommodate several hundred guests.

The road from Merced at first runs through slightly rolling and fertile meadows with an occasional water way, which led a "nouvelle riche" lady tourist to remark

that she was "really tired of seeing those *irritating* ditches."

But that was farther south.

We do not skirt the river until somewhere above Merced Falls.

As we follow and ascend the river, the scenery becomes well worthy of our cameras. The road crosses the river at several points and the bends in the precipitous stream are numerous and picturesque, the gradually rising slopes on each side of the river drawing closer together as we approach until the canyon becomes quite narrow. The Merced, placid enough where the stream is wide and deep, soon dashes over the rocks like a raging torrent.

At Bagby there is a fine dam. This place is destined to become the most important station on the railroad. From here there is a good stage road to Mariposa, and some mining claims have been located in the vicinity. Little work has



JUST ABOVE EL PORTAL

By EDGAR E. COHEN

as yet been done upon them. Above Bagby the gorge, looking like a chasm cut into the Cordilleras, reveals great masses of granite and splintered rock brought here by the ice rivers of the glacial period. The avalanche tracks are plainly seen. A few trees, some of them of considerable height, appear at the base of the ridges, here and there, wedged in among the rocks over which dashes the narrow river now more boisterous than ever.

We can distinctly hear the noise of the waters as we are ushered by polite attendants to our comfortable tents at El Portal, four hours after leaving Merced.

I will say, however, that as a matter of personal gratification, it is worth

spending a night at El Portal in order to enjoy the hospitable treatment of Manager Sells and make the trip into the valley next morning. Here the new stage road, but ten miles to the floor of the valley, affords the visitor a most delightful trip through scenery only surpassed by that in the valley itself.

The dewy freshness of dawn, the lovely tints imparted to the water, trees and rocks by the rising sun, the dignity of the crags whose tops reach higher and higher, gradually prepare us for the sublime spectacle awaiting us at the summit of the canyon. This is undoubtedly destined to become

the popular route to the Yosemite. Indeed, so great is the travel at this early date that the roadway, in many places cut into the sheer rock, is being widened to admit of more extended travel. In some places a change is not necessary and in others it is hoped none will be made. Tunnel Rock, for instance, should be allowed to remain as it is. Nature, in her Titanic play at ninepins with boulders, considerably caused two immense ones to fall in such positions as to form a perfect tunnel. Stage drivers, with a tact that does them infinite credit, slacken the speed of their horses when driving through, in order to facilitate indulgence in the usual privileges accorded affectionate couples under such circumstances. After leaving Tunnel Rock, we are too engrossed in the scenery to think of much else, although our imaginations are



CHIMNEY ROCK

By EDGAR A. COHEN

taxed by the stage drivers, who call our attention to the fancied resemblance of rock formations to various images of familiar objects. The greater your imagination the more you will enjoy the fancied resemblance. Elephant Rock certainly does reveal, at its summit, when seen at a proper angle, a fairly good profile of that pachyderm order of quadrupeds. A little distance beyond, on the left, is the most attractive individual feature of the drive, the beautiful "Cascades," unlike the other falls in the valley, which makes a sharp turn to the right midway in its descent, owing to the formation of the cliff over which it dashes.

In the ascent from El Portal to the floor of the valley, a distance of



THE PORTAL THROUGH ARCH OF OAKS

By EDGAR A. COHEN

nine or ten miles, we rise two thousand feet, the heavier part of the grade being between El Portal and the Cascades. Above the latter the scenery is perhaps less rugged and wild. The timber gradually takes in more imposing proportions, yielding a greater abundance of foliage. We are still running, or rather creeping, along the banks of the narrow river. The road is like a winding stairway from its ever changing position, presenting a different point of observation, now through a wealth of ferns and taller foliage, now from between the moss-covered rocks and boulders that almost bar our passage. There is one feature here which is particularly gratifying: not a single rock or tree proclaims the merits of Peruna, Bing's Bitters, or other patent medicines, possibly because it is known that they will not be needed here. Nor do we see painted pictures of erect goats holding in devilish glee the festive "stein," no eulogies of soap, floating on the surface of water in imaginary wash bowls. Of course, their absence is so unusual in California that we almost feel the scenery is incomplete.

We finally reach the summit of the canyon, and enter the Bridal Veil meadows, where we are suddenly ushered into the wonders and beauties of the world-famed valley.

Its great walls tower above us, while the clean, level floor presents a beautiful carpet of green, through which runs the winding river, fringed by groves of cedar, cottonwood and oak. The Camera Club located at Camp Yosemite, an ideal spot for a tent-hotel, near the foot of the falls. It is admirably presided over by Miss Hickey. Even the writer, who, through



THE INDIAN VILLAGE

By CHARLES WEIDNER

the machinations of his enemies, was assigned to Tent 23, can say that he found the accommodations all that could be desired. Excursions were made every other day to the principal points of interest, the alternate days being spent in such manner as the fancy of individual members dictated. The Club members enjoyed a very unusual experience for the valley at this season of the year in the form of a heavy fall of snow which they enjoyed to the full, particularly as it was accompanied by a very mild temperature. Many good pictures were secured by those who were not too busy enjoying the snowballing. Good trails make the ascent to the summits of the falls and peaks by no means difficult. The donkeys know every foot of the ground, and it is unnecessary to admonish them or indulge in remonstrances. One of our party, for so doing, was unceremoniously whisked off of his charge at Sentinel Dome. A piece of advice I might give tourists on the trails: If you have anything to say to your donkey, say it "to his face," and above all never attempt any liberties with his narrative.

It is the general views of the valley that fix themselves most indelibly on the memory. From the different trails,—notably that to Glacier Point,—a succession of lovely vistas is unfolded. But none are as impressive as the view from Inspiration Point, at the lower end of the valley. The vision embraces a greater diversity of individual scenic beauty than can be found in any other place of the same area. Here, if at all, the beholder pauses and takes solemn thought with himself, and truly feels that life is really worth living in the presence of this wonderland of creation.

A feature of interest in the valley, and one seldom touched upon, is the little rancheria, or so-called Indian village, less than a quarter of a mile from Camp Yosemite. The Indians in the valley today are not so numerous



PASSENGER TRAIN ABOVE BAGBY
By EDGAR A. COHEN



GALEN CLARK—THE PIONEER

By ALBERT LEBRETON

as in years past. I only saw a few, but my friend Weidner was more fortunate, and obtained some excellent pictures.

Within a stone's throw of the rancheria is the little cemetery, of particular interest because the remains of the first settlers, Hutchins and Lamon, lie there, appropriately reposing under the shadow of Sentinel Rock. Another pioneer, now in his ninety-fourth year, will in time be beside them; and he has himself prepared for the final summons. He may now be seen every day, a familiar figure around Camp Yosemite. In his spare moments he visits the little cemetery, where he has fenced in a plot and planted a few locust trees which he waters with regularity. Lying in front of the lot is a granite block on which is simply inscribed the name Galen Clark. We all left the valley with a kindly feeling for the old pioneer.

Some thirty years ago, when I had as yet traveled but little, I visited the Yosemite Valley. A number of my fellow members have asked me to give my present impressions. I may as well state, in all candor, that on entering the valley I was not as spell-bound as I had been on the occasion of my first visit. The height of the encompassing mountains, the mighty cataracts sending down, in amazing volumes, their diaphanous and and fleecy sheets, and above all the graceful proportions of the valley did not at once impress their grandeur upon me. Perhaps the scene is too great and too vast to be easily comprehended. But one thing is certain, it grows upon one. It appealed to me more and more as my visit was prolonged.

Of some points I had retained but an imperfect recollection, and I rejoice that I have visited them a second time. The Half Dome, Tisack, Goddess of the Valley,



"Lying in front of the lot is a granite block"

By A. LEBRETON

with its large level crown of snow, made upon me a most profound impression. Its quiet dignity and unobtrusive grandeur always arrested my steps when I passed within sight of it. To me El Capitan belongs to another order of grandeur, more sublime, more awe-inspiring of course, but almost too much so, too terrifying in its aspect. I can imagine no greater emblem of massiveness, strength and majesty. But Half Dome, with its singular shape, leaving so much for conjecture as to its possible origin, and its inaccessible heights, soaring far above El Capitan, holds the eye in constant bondage. Indeed, as I looked at its solid vertical front of two thousand feet, and the beautiful setting in which it lay,—perhaps that had something to do with it,—I was always fascinated. It and Vernal Falls are my favor-

ites. The latter, from Lady Franklin Rock, is to me a picture never to be forgotten.

Mirror Lake, although charming from a photographic view point, was a disappointment, both as to extent and surroundings. But then I have been to Lake Louise, near Laggan, British Columbia, and I consider it the most beautiful spot I have ever seen. The towering Victoria and Leproy Glaciers, at the base of which lies the lake, have no counterpart in Tenaya Canyon, nor does one find the wealth of coloring in the reflections.

But while I recall, and always will recall, the great glories of the glaciers Sir Donald, The Hermit, Mts. MacDonald, Assiniboine and



YOSEMITE FALLS

By FRANCES REID McCULLOCH

others in British Columbia, I cannot overlook many features here which are not found in those impressive sections of our continent. Vegetation in the Yosemite is more luxuriant and exists in far greater abundance. The eye is everywhere charmed by the presence of magnificent trees, even on the top of Cloud's Rest and Sentinel Dome. Most of these trees belong to the sugar and yellow pine variety. (The sequoia is only found at a greater elevation, the grove at Wawona being, I believe, nearly seven thousand feet above sea level.)



VERNAL FALLS, FROM LADY FRANKLIN ROCK

By D. J. FOLEY

The Despised Blue Print

By PRESTON E. ANDERSON

The average amateur, and how little removed we all are from this average amateur class, holds the blue print in contempt. A print in that medium at once stamps the maker as well nigh devoid of all skill or taste, in the eyes of many of his brother workers. Often the verdict is not far wrong, but at the same time, judgment should be withheld until other evidence condemns. We should at least absolve the process from all blame; one might almost as justly condemn platinum as a printing process because the results secured by a slipshod beginner are so uniformly gray and muddy. However, we have seen the beautiful prints that right use and good negatives produce on platinum and consequently the worker is blamed.

Did you ever see a really good blue print? If you have, you will need little in the way of argument before agreeing with me that it is at least a process that gives a very pleasing variation from the usual output, particularly if it be used for suitable subjects. I have a vivid recollection of a most pleasing set of marine views which for many years ornamented the study of a friend. They were vignettied off, some of them, in a most effective manner, and the mats which surrounded them were cut from blue blotting paper, a tint and texture that exactly suited the prints. The frames were narrow mouldings of dull gold that still further set off the pictures. I am convinced that no other monochrome printing process could have better served the purpose of these particular negatives than our despised blue print.

Another reason why the average amateur should take up the process is that it gives him an easy and encouraging introduction to the work of preparing his own paper. True, the knowledge and experience gained by coating a few sheets of paper with ferro-prussiate solution will not avail him greatly when he comes to emulsion making for more complicated printing processes, but at the same time he will have acquired a certain amount of confidence that will prompt him to succeed. Still further, the use of the blue print process will encourage one in the production of good negatives. A good negative for the blue print process will not only give a good print on practically every printing paper used, but the same negative is about right for either lantern slides or enlargements.

Almost any paper will answer if it be of fairly close texture and strong enough to stand washing and handling. Rather porous papers may require sizing, but this is by no means difficult. As the worker may wish to use some such stock for some special effect I will give a few necessary directions: One-half ounce of arrowroot and sixty grains of glucose should be mixed up in a little cold water; then about a pint and a half of

warm water added, and the mixture boiled in a porcelain dish. When cool, the skin that forms on the surface is removed and the paste squeezed through canvas. The sheets to be sized are fastened down onto a board and the size applied with a soft sponge, spreading first one way and then crossing in the other direction. A second sponge of soft texture is used to still further even the sizing and remove any surplus. A very little practice will enable one to apply a most even and uniform coating. The sheets will dry very quickly if hung up in a warm room free from dampness. Sizing keeps the ferro-prussiate solution from sinking into the paper and producing results that are lacking in vigor. My own practice has been to utilize the back of spoiled bromide, gaslight and platinum prints, sizing such as I thought needed that preliminary operation. Another good plan is to reduce out the image from gaslight and bromide prints and sensitize the gelatine coating that remains. The same plan can be employed in the case of undesirable negatives, the resultant prints being used as transparencies. I once made a very pleasing window screen by getting a glass worker to lead together a number of these blue transparencies with suitable ground glass backing. The screen was used to occupy the lower sash of a window that opened upon a rather unattractive view of an alley. Spoiled plates and negatives should be selected that have been carried through without damage to the film. A strong solution of hypo is made distinctly yellow by the addition of red prussiate of potash, and in this the image will shortly disappear from the negative to be cleared. If the solution is too strong it may stain the paper in the case of a gaslight print, and for that reason it is best to use a lesser amount of the red prussiate. In either case, the plate or print should be removed as soon as the image is reduced out and a good washing given.

The sensitizing solution is prepared by first making up the two following and then mixing them together. The first is: Ferric ammonium citrate, one hundred and ten grains; water, one ounce. The second: Potassium ferricyanide, forty grains; water, one ounce. The mixed solution keeps for several months if stored in a stone bottle, or even in a glass one if kept away from the light. It is well to filter the solution before using. It is better to obtain the green ferric ammonium citrate, if possible, and the crystals potassium ferricyanide should be washed clean of adhering powder before being used in making up the second solution.

Coating the paper is carried out in much the same way as advised for the sizing. Small "velvet" sponges with a portion of their bulk crowded into the neck of small, wide-mouth bottles, make excellent brushes, and ones that stand upright instead of lying down where they are liable to pick up dirt or impurities. After coating, the paper should be dried as quickly as possible. Hung up in a warm, dry room, an hour should suffice. Hold near a fire if desired to hasten the work. The paper will not keep in good condition for more than forty-eight hours, but by adding a grain of potassium bichromate to every two ounces of the sensitizing solution, some keeping quality is conferred. It is not necessary to dry in absolute darkness. Gaslight or very weak daylight will do no harm.

Printing will require some, but not much, experience. Print in sunlight until the shadows show a metallic-looking bronze color. In printing, the paper first colors to a bluish green, then into a deep olive-green, with the bronzing in the shadows. The paper is so cheap and its preparation so easy that there is little incentive to efforts in the direction of saving under- or over-printed results. However, if prints are not satisfactory after development, a weak solution of ferric chloride, say, thirty grains to the pint of water, will make a bath that gives slight intensification to weak prints. Too strong prints may be reduced in an alkali solution of like strength, using carbonate of soda or any other convenient alkali. Prints so reduced are inclined to a slaty-blue color, much less pleasing than the original blue, except, perhaps, for some special effects.

Developing the blue prints as they come from the frames is simplicity itself. The prints are washed through several changes of water, the process of removing the soluble salts requiring about twenty minutes. The only danger to be avoided is that of too long washing. Most tap water contains some alkali and thus has a more or less bleaching effect, as suggested above, in speaking of reduction. This reducing effect is not particularly detrimental were it not for the accompanying unpleasant degradation of the color. Where the water used is suspected, it is well to add about twenty grains of citric acid to the pint, giving the prints a final wash in plain water, to remove the trace of acid that may be left in the prints.

Many of the annuals and other hand-books contain directions for converting the blue image into one that is red, brown or some other color, but my own experience is that none of them are practical; at least, not to the extent of giving tones that are satisfactory. Experiment with them if you wish, but should you not be pleased with the result, you may console yourself with the fact that the author of this article has had no better success, although he has made thousands of blue prints, and has worked the process for over ten years.

And as to how many of these thousands of prints came to be made: It was my practice for a number of years to make a proof from each negative, on blue print paper, letter-sheet size. As most of the negatives were 5x7, or smaller, and but a few up to 8x10, there was a wide margin of blue printed all around, the left-hand one being used to bind them together in book form. Not only did this practice give me a good index to all my negatives, but it gave me a perfect guide as to the printing quality of each. If the proof showed a print of good quality on the blue-print paper, I was sure that I could get a good print from that particular negative, on almost any paper I might choose to employ. If the results were hard and contrasty, I knew that I must select a paper accordingly. Another advantage was this: I was often bothered by my newspaper friends for prints. If they were shown prints on any other paper they pleaded they must have the desired ones at once, and that they would be returned promptly. The result was that, except in rare cases, the return was forgotten and my set broken. With the blue-print albums the originals were of no use, as they could not be reproduced, and consequently I had the pleasure of making

the prints they wanted, having them appreciated accordingly, and, where advisable, charging for the trouble.

Learning that a solution of neutral oxalate of potash, to which a little gum arabic had been added, could be used with a pen, to reduce out the blue image and form lines in white, I adopted that method of inscribing the number and other filing data concerning each negative in the wide, blue border under each proof. About a drachm of the oxalate should be dissolved in an ounce of water, and then enough gum arabic added to make it flow nicely from a pen. The solution is allowed to act for a moment and then the print given a slight wash. The same solution without the gum can be used with a brush or tuft of cotton, to produce vignetted effects. I regret that it is impossible for me to have reproduced some of my own efforts in this direction, as they are, to me, much more satisfactory than vignettes made by the ordinary method of shading during printing.



IN GLOUCESTER HARBOR

By C. M. WHITNEY
Postal Camera Club

The Postal Camera Club

By FAYETTE J. CLUTE

With Illustrations from the January Portfolio

The Postal Camera Club owes its origin to an article in the "Photo-Beacon" of May, 1900, in which a Mrs. Glazier set forth the advantages of an exchange of prints accompanied by notes thereon. The editor of the magazine, our good friend F. Dundas Todd, added a note saying that those desiring to co-operate in some plan of the kind, might send in their names and addresses, and, if feasible, a club would be organized. In the next following issue a dozen names were given as those of readers who had responded, and Mr. Todd suggested that Mr. Robinson assume charge of



THE RIVER ROAD

By C. M. LOUISE LEWIS

the preliminary organization, Mrs. Glazier's name not appearing, as she was about to leave for the East on an extended visit. The only name on the original list that is at present represented on the roll of the club was that of Miss C. M. Louise Lewis, of Falmouth, Massachusetts. A letter addressed to Mr. Robinson was delayed in delivery and later a reply received saying that as his business arrangements necessitated his constant change of address, some one else would have to be selected to carry on the work. The task fell to Henry Hall, of Dongan Hills, New York, and that gentleman published a letter in the November issue of the "Photo-Beacon" announcing the starting of the first album over the route list on October 10th, 1900. A few of the original names were missing and a few new ones had been added, bringing the list of members up to thirteen, this time with



THE ADVENTURER

By MRS. W. W. PEARCE

the name of Henry Kern, San Francisco, California, showing as a member, making two of the present members who were represented in the first album.

The first circular letter that was gotten out by Mr. Hall was sent to all the members, but as it occupies nearly three pages of the "Photo-Beacon," it can hardly be reprinted here entirely. Mr. Hall asked for suggestions as to the form and plan of the criticism; the size and shape of the albums; the sending of prints; number of members, and the drafting of a constitution and by-laws. The result was that a number of excellent suggestions were made and from them was evolved a plan that has been changed but little at the hands of the club, although the membership has changed almost completely. Just at what time the constitution and by-laws adopted were first printed, I do not remember, but think it was during the administration of the fourth director, W. H. Monroe, of Leominster, Massachusetts. Mr. Hall served as director until January, 1902, when he was followed by another of the original members, L. L. Potter, of Cairo, Illinois. Following came W. H. Barnes, of Minneapolis, who in turn was succeeded by Mr. Monroe, who did much in the way of placing the club upon a sound basis.



THE ANGEL OF THE DARKER DRINK
BY KATHERINE BINGHAM

The present director, H. W. Schone-wolf, of Albany, New York, assuming the directorship in January, 1905, has no doubt given the club the best administration it has ever enjoyed, and it is owing to his untiring efforts that the club has made the wonderful strides that it has in this last period. The albums have grown from modest little books requiring but a few cents postage to large portfolios more conveniently sent by express. The quality of the work has improved most wonderfully and the present membership numbers many who have achieved recognition in the American Salons and other important exhibitions.

The first constitution and by-laws which I mentioned above read as follows:



KINGFISHER

By R. H. BEEBE



EVENING ON THE GRAND

By C. H. JONGEJANS

“ Constitution and By-Laws of the Postal Camera Club

“1. The object of the club shall be advancement in the study of photography by the exchange of prints and ideas; correspondence between the members; and the circulation of an Album to be mailed to the members in rotation once each month.

“2. The club shall have one officer only, who shall be called the Director, and who shall transact all the business of the club; attend to all correspondence; keep an exact account of all expenditures, and render a report on the first of December in each year.

“3. On the first of October in each year the Director shall send to each member, a ballot, which will be promptly remailed to him by the member, giving his choice for Director for the year beginning with the following January, when the

new director shall take office, having been elected by a majority vote.

"4. Any person practicing photography as an amateur, when recommended by a member of the club, may become a member on payment of the annual dues, provided that there is a vacancy.

"5. Membership shall be limited to 20. Vacancies may be filled as provided in the previous article, or the Director may insert a notice in the 'Photo-Beacon'; but, as far as possible the new member shall be in a different locality from other members.

"6. Any member shall have the right to put before the club at any time, any question concerning the welfare of the club, the question to be sent to the Director, who shall secure the



A SONG OF THE SEA

By H. W. SCHONEWOLF



"DICKEY"

By E. W. SAWYER

vote of the members as speedily as possible, the majority ruling in all cases.

"7. Any member may be dropped from the club by a two-thirds' vote of the members.

"8. The dues shall be fifty cents per year, payable in advance by members elect, and thereafter, on the first day of December for the following year. Any member one month in arrears for dues or assessments, shall be notified by the Director, and if not paid in one month thereafter, shall be dropped from the rolls.

"9. In case of necessity, the Director may levy an assessment, but this assessment shall not be more than fifty cents per member, nor shall the Director levy more than one assessment



H. W. SCHONEWOLF
Director, Postal Camera Club

in six months, unless authorized by a two-thirds' vote of the members.

"10. Each member must mail his print to Director not later than the 25th of the month preceding the month the Album is to represent; this section must be strictly adhered to. On the first day of each month, or as near to it as possible, the Director shall send the Album to No. 2, who will pass along to No. 3, and so on, and the Album has been returned to No. 1.

"11. In starting the Album each month, the Director will mail under separate enclosure, a route-list for the Album, which must be strictly followed. On this list, each member will note the day on which the Album is received, and also the date on which it is mailed to the next on the list, and also state the condition of the Album.

"12. With the route-list will be mailed a set of sheets on which the members will write their criticisms of the prints. There will be one or more sheets for each print, as may be necessary, and each member will use the space on each sheet, designated by his number on the route-list. The Album will be circulated twice, and on the second round, each member will keep the sheet containing criticisms of his print, and after completing the second round, the Album will be retained by the Director.

"13. Any member failing to send print for two successive months, except for good reasons, shall be dropped from the rolls.

"14. No member shall hold the Album more than three days, nor shall any member send the Album to any other person than the next on the list. Any member failing to carry out the provisions of this article, shall forfeit membership and dues paid.

"15. Each member, on mailing the Album to the next on the list shall, at the same time, notify the Director the member Album was received from and the member Album was sent to. The Director shall take steps to locate the Album if notification is not promptly received. Any member failing to notify the Director, as provided in this article, shall be omitted from the next following Album, and a second failure in one year shall cause the delinquent member to forfeit membership and dues paid.

"16. The Album shall be mailed as a separate package from all written matter, and all written matter shall be on paper as light as possible, in order to lessen the cost of postage."

These have been amended somewhat, in order to conform to the requirements of the present organization. Herewith is given the Director's letter accompanying the January portfolio, which will give a good insight into the methods of the Club. As at present conducted, the Director starts one of the portfolios on its second round with a new one containing a print contributed by himself. The next member on the route-list contributes his print to the new collection, criticizes the one already in the new portfolio and those in the former one on which he had not as yet commented, sending

the portfolio on to the next on the route-list. This plan does away with the necessity of the Director constantly writing the members for prints, and it also allows each member to put in his most recent work and use some care to see that his own contribution afforded some variety to the particular portfolio to which it was contributed. A still further advantage lies in the fact that the criticisms were not all



SUMMER

By W. H. ARNOLD

started off by the same member recording his impressions at the head of every sheet accompanying any certain portfolio.

The limitation as to membership has been removed and thirty members are now allowed. Once a year the members are all expected to contribute a portrait of themselves, and this adds greatly to the feeling of companionship and mutual interest in one another's work. From time to time effort is made to produce an exceptionally fine collection, this generally being done at the close of a season and after the results of the American Salon selections have been made known. With this article are reproduced several examples of the work of the members in the most recent portfolio of this character. Unfortunately, Mr. Phillips' Venetian Boats and several other of the best pictures have been reproduced so often that I must confine myself to less well-known examples of the members' work. However, the prints shown will give a very good idea of the class of work that the members are capable of doing.

With one of the pictures, "Day Dreams," I am printing the heading of the criticism sheet together with the criticisms of such of the mem-

bers as have so far received that particular portfolio. These sample comments will show that the members take an active interest in the work of analyzing each picture and to this practice is no doubt due no small portion of their success with their individual productions. The selection is not a happy one as a subject for criticism for the reason that a less perfect production naturally invites more lengthy, more varied, and more spirited comment, but room does not permit of more than a few characteristic criticisms:

Subject: "Day Dreams." Photographer, C. R. Tucker

Date: June, 1906. Time: 4 P. M. Light: Sun shining on window. Stop: F-6.8. Exposure: One second. Plate: Cramer Instantaneous Isochromatic, not backed. Developer: Ortol. Camera: Premo. Lens: Plagiot, seven and one-half inch focus. Paper: Angelo Sepia. Remarks: Very weak developer on unbacked Isochromatic plate gives me no halation.

Criticisms

A magnificent picture with light well handled. Flowers well placed. The arm I think is a little strained and looks uncomfortable. I said the light was well handled, but think toning down the high light on sitter's lap would improve what is already a very good thing. I have got a set of prints ready for you, Mr. T., and you might send me one of these.

Zerbe.

My criticism is that the bottom of the dress seems a bit too much spread out, and that the arm on the window sill is a bit stiff; if the wrist had been bent, allowing the hand to hang, the pose would have been easier. Nevertheless, a good thing.

Whitney.

I have another negative in which the hand does hang over the sill; this is usually called the better. See "Photographic Times" for October, 1906.

Tucker.

Another that is too good for me to comment on. Thank you for the remarks.

R. C. B.

A very attractive picture. I think the trouble with the arm is that the sill is a trifle too high.

K. B.

The suggestion that the dress is spread out too much at the bottom; that the arm is a little strained, the cause being the high sill, and that the light on the lap be toned down, all meet with my approval. These are minor faults, however, and I like the print very much. The absence of halation, for an unbacked plate, is excellent

R. P. Hines.

A little too much dress at the bottom, which seems to occupy about one-half the picture. Too good, however, to allow me to find any other faults. I'd like one, Brother Tucker—I'll exchange.

W. H. Arnold.



DAY DREAMS
By C. R. TUCKER

My only criticism is that it is too small; it's excellent work.

F. C. Rogers.

I think this is about perfect. It is simple and effective, with a quiet dignity becoming the subject. I think, however, that with the camera a little lower, the left shoulder would have been raised and the seat appeared less broad. A longer focus lens would have lessened the importance of the rather assertive mass of the skirt.

Clute.

Following is given a list of the present membership: William T. Knox, New York, New York; William H. Zerbe, Richmond Hill, New York; Chester M. Whitney, Bayonne, New York; C. R. Tucker, New Brighton, New York; William A. Fiske, Putnam, Connecticut; C. F. Clarke, Springfield, Massachusetts; R. C. Burckes, Winter Hill, Massachusetts; Miss Katharine Bingham, St. Johnsbury, Vermont; Percy R. Hines, Schenectady, New York; Will H. Arnold, Elmira, New York; R. H. Beebe, Arcade, New York; C. L. Gray, East Liverpool, Ohio; William H. Phillips, East Liverpool, Ohio; E. W. Sawyer, Springfield, Ohio; E. Stanley Thomas, Fremont, Ohio; C. H. Jongejans, Grand Rapids, Michigan; Mrs. W. W. Pearce, Waukegan, Illinois; Brugh Werner, Decatur, Illinois; Richard Hines, Jr., Mobile, Alabama; Freeman C. Rogers, Pueblo, Colorado; Henry Kern, San Francisco, California; Fayette J. Clute, San Francisco, California; P. S. Campbell, Decatur, Illinois; Miss C. M. L. Lewis, Falmouth, Massachusetts; Mrs. Elinor Smith, New York, New York, and H. W. Schonewolf, Albany, New York.

The January Club Letter

Albany, New York, January 5, 1907.

Fellow Members of the Postal Camera Club:

The vote for director for 1907 resulted as follows: Mr. Zerbe, 3; Mr. Schonewolf, 18. It would have pleased me to have had Mr. Zerbe or any other member chosen, because there is more or less work connected with the honor, and I have been so very busy since last summer that I thought I would have to give up camera work for a time. I hope, however, to pull up and do something very soon. If any of you can send a supply of nice fluffy snow this way, I will have blessings heaped upon your head. For some time I have had in mind a change in regard to portfolios, which will, perhaps, lessen the work of the director, and I shall try the plan beginning with January, 1907. It is not a new idea, but a good one. Listen and you shall hear: Instead of forwarding prints to the director, in future you will insert your print when the portfolio reaches you. About a week or ten days before it is due, you will receive a postal from the second member before you on the list, advising you that he will forward portfolio to the next member before you on the list. This will give you time to prepare a print. Full instructions will go with each portfolio. As provided in By-Laws, I will retain the best prints from each portfolio with the idea of using them in a special collection in the future. I had the pleasure of seeing a special portfolio of the Postal

Photographic Club of Washington, consisting of the best prints submitted for seven years past, and it was a fine collection. This Club must, and can, do as well.

Alternate portfolios during 1907 will start from the other end of the line—San Francisco. This will give the cowboys a chance to get ahead of the tenderfooters on criticisms occasionally. At first opportunity I will return to members unused prints I have on hand.

I almost forgot to give you the result of the vote in regard to makers' names appearing on criticism sheets on first or second round. Here it is: First round, 10; second round, 10; any way, 1. The above does not include my vote. I vote first round, because as members insert prints it will appear on first round anyway. Having disposed of this vexatious question, let us get down to business and make 1907 portfolios better than 1906.

With best wishes, and thanking you for your confidence, I am,

Sincerely,

H. W. SCHONEWOLF, Director.

How I Make My Best Ozobrome

By THOMAS MANLY

I have six 12x10 bromide enlargements from which I want to make ozobrome transfers. They must be finished this evening as the receiving day for the exhibition is early next week and there are the frames to consider and get made. I seldom make ozobromes by No. 1 method now, as I think the transfer method No. 2 is much superior in many respects, the result being pure carbon pictures without admixture of silver and I save my bromide prints for further copies. The bromide prints have all been fixed in the chrome alum fixing bath, thoroughly washed, and the quality varies. Nos. 1, 2, 3 and 4 are normal; that is, they require no alteration in the gradation to produce good results. No. 5 has rather dark shadows and clear high lights, in fact, is too contrasty. No. 6 shows over-exposure in enlarging; it is slightly veiled and the shadows are a trifle weak.

Nos. 1 to 4 require treatment with the normal pigmenting bath; No. 5 requires an addition of alum to the normal bath, and No. 6 requires an addition of citrate solution to the normal bath, the formula for which is:

Water 100 parts.

Boric acid..... 3 parts.

Citrate of potass.....2½ parts.

I take eight ounces of concentrated ozobrome pigmenting solution and add thirty-two ounces of water, making forty ounces of dilute solution. I place three porcelain dishes alongside one another and will call them A, B and C, thus:

Citrate of potass.....2½ parts.

Into A I pour the diluted pigmenting solution or working bath; B and C

I half fill with clean cold water. I now only want a soft sponge, a camel hair mop brush, two sheets of plate glass, a flat squeegee, a developing tank and thermometer to complete my outfit.

It is 7 o'clock and I am ready to commence operations. I first place the bromide print in the dish of cold water, C, and pass the sponge lightly over the surface to remove airbells; then take the pieces of pigment plaster the color I require and cut a little larger than the bromide print. This I slide into the same dish, C, and lightly pass the soft sponge over the gelatine surface, being careful not to allow the plaster to remain in the water longer than half a minute (30 seconds) at most. I now remove it from the water and allow it to drain while holding it by a corner. I then gently slide it into the working bath contained in dish A, keeping it under the surface with the soft mop brush and rocking the dish to insure even soaking. I let it remain in the solution between one and one-half to two minutes. At the expiration of this time I lift it out of the solution by a corner and allow it to drain, removing any adhering airbells with the brush. I next draw it, face downwards, across the surface of the water contained in dish B and at once transfer it to dish C, where the bromide print is lying and lay it carefully face downwards, upon the surface of the water, avoiding airbells by first allowing one edge of the plaster to touch the water and gently lowering the remainder. I then pick up the two corners of the underlying bromide print and bring them into contact with the two corresponding corners of the overlying plaster, and holding the papers firmly together I gently draw them clinging together out of the water. Then, adjusting the adhering papers quickly so that the plaster shows a margin all around the bromide print, I place them upon a sheet of plate glass, plaster uppermost, and squeegee them into contact with a flat squeegee, first very gently, then increasing in force, but never pressing roughly. I now make a note of the time on a corner of the plaster backing with a soft coute pencil, and lifting the underlying papers with the blade of a palette knife, place the adhering sheets between blotting paper under slight pressure.

The bromide prints Nos. 2, 3 and 4, being of the same character, are treated in the same way, remembering that after each operation the water in dish C must be changed. There is no necessity of changing the water in dish B. No. 5 is rather a hard bromide print and I want to make a soft ozobrome from it. I therefore add a small quantity of a five per cent solution of alum to the working bath. I generally add one dram of the five per cent alum solution to every twenty ounces of working bath, after using it for six 12x10 prints, to keep it in order; but as this is a case of directly altering the gradation, having already used the bath for four prints, I will add two drams of alum solution to each twenty ounces, making four drams to forty ounces of working bath. The manipulation is exactly the same as described for prints Nos. 1 to 4.

No. 6 bromide print is slightly veiled, the bath therefore requires the addition of the citrate solution mentioned above. It is obvious that if one has made up a bath that gives soft results he will have to neutralize

the softness producing property before he can make it into a bath giving contrast. This can be done by adding the same amount of citrate solution as of the extra alum added, but this is scarcely to be recommended in practice, especially doing so more than once. It is better to add the citrate to a fresh bath and keep the solution especially for veiled and foggy prints. About thirty to forty minims of the citrate solution added to twenty ounces of working bath will generally be found sufficient. Bearing in mind that these pictures are for exhibition, I will make up a fresh working bath, and, as the over-exposure is only slight, I will add one dram of citrate solution to the forty ounces and keep the bath for future over-exposed prints.

It is now 7:30 o'clock and the squeegeed print I first placed between blotting paper is quite ready for the transferring, fifteen minutes being the usual time. I have already selected what transfer papers I want, namely: three of B quality, medium grain; one of C quality, white etching, and two of D quality, toned etching. I change the water in dish C and slide a piece of transfer paper under the surface, wiping it gently with the sponge to remove airbells and allow the paper to remain in the water for one minute. I now take the squeegeed print from between the blotting paper and transfer it to dish B and at once separate the two papers by taking hold of a corner of the plaster and pulling it away from the print. I keep hold of the plaster by a corner (leaving the bleached print remaining in the dish), and pass the fingers of the disengaged hand over the four edges to remove airbells which are most likely to be formed at the edge where the bromide print was attached to the plaster. I next transfer the impressed plaster into dish C and lay it gently on the surface of the water, one edge first, and lower the remainder gradually to avoid airbells. I then lift the underlying transfer paper and bring it in contact with the plaster under the water and withdraw the two papers clinging together in the same manner as I manipulated the bromide print and plaster in the first operation. I allow the adhering papers to drain and then squeegee them together, plaster uppermost, on the sheet of plate glass; using the squeegee very gently at first and then increasing the pressure. I now place them between blotting paper under a fair pressure, such as a large sheet of plate glass. I now find that rough transfer papers do not require longer soaking than smooth ones, but in no case should the plaster be supersaturated with water. All my other prints I treat exactly in the same manner.

It is now 7:50 o'clock and the first transferred print has been under pressure for twenty minutes. Fifteen minutes is the usual time but a little longer does not matter. I began heating the developing water as soon as I made my first transfer and it is now 104 degrees Fahr., a good temperature to begin with. I take my first transfer from between the blotting paper and place it under the surface of the warm water. In a few seconds the pigmented gelatine begins to exude along the edges and it is time to remove the plaster backing. This operation is much easier than in ordinary carbon printing; in fact, it never causes any difficulty. Do not be alarmed if you see that the pigmented gelatine has run into light circular patches, it

only denotes the softness of the unacted upon gelatine, which is very easily dissolved away in the process. I usually remove the soluble gelatine by keeping the picture, face downwards, on the surface of the warm water and moving it backward and forward so as to produce friction between the water and gelatine. In about a minute I turn the picture face upwards and see how development is going on. Ozobrome pictures develop very easily up to a certain point. With a new bath this point is as far as the development should be carried, but when an excess of alum has been added, hotter water and longer development will be required to produce the same effect. An excess of citrate solution will have the opposite effect and the water used for developing should be cooler. I always finish the development by dipping the pictures in cold water for a few minutes.

It is now 8:30 P. M. and I have my six ozobrome pictures hanging on a line to dry. I will now turn my attention to the six bleached bromide prints lying in dish B. These require fifteen to twenty minutes in running water before redevelopment, and as I have not time tonight I will wash them and hang them up for development tomorrow. During the washing of the bromide prints, I pour back into their respective bottles the working baths I have used. The first solution which was used for five prints and to which alum was added is cloudy and requires filtering. The second solution containing the citrate is perfectly clear. I will conquer my intense desire to closely examine the finished ozobromes till tomorrow morning as I know to my cost how easily damaged they are when in a wet condition.

Next Morning: The pictures are A1; not a single airbell on any of them. No. 5 might have had a little more alum added to the bath, but then, the judges will not have the original negative or bromide in their mind's eye and it may pass. The frames will be the subject of tonight's dreams.

Principles of Art

It would be beyond the truth to say that the principles which underlie all old work are the same. Those principles are as diverse as the temperaments and characters of the races among whom they were developed. The Egyptians loved mystery and symbolism; the Greeks carried the refinement of form to perfection; the Romans revelled in richness; the Byzantines indulged in a brilliance of color that is yet always barbaric; the Arabs gave themselves up to the subtle interweaving of intricate detail; the artists of the Gothic period combined religious sentiment with energy of execution; and those of the Renaissance returned to the worship of beauty for its own sake. We should seek in vain elsewhere for the all-pervading symbolism that runs through Egyptian ornament, the purity of line that characterizes Greek detail or the sumptuousness that belongs to Roman scrollery. Inasmuch as all nations and all ages differ, their expression in ornament differs; and inasmuch as all nations and all ages are alike, they express themselves alike in their every-day art.—Lewis Foreman Day.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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The Northwest Convention

Do not fail to attend the Seattle Convention, September 3, 4, 5 and 6. It will be the largest and most enthusiastic convention ever held on the Pacific Coast. Every available space for manufacturers and dealers was taken almost as soon as offered, and new members are joining the Association every day. A special convention committee has been appointed, composed of Seattle photographers, Messrs. Wills, Ralston and Hamilton, and they are doing everything to insure the hearty co-operation of the local men, to the end that Seattle will be well aware that the convention is in progress, and those attending will not be allowed to forget that they are guests of Seattle.

Pictures Wanted

As announced in our last issue, pictures for the Fourth American Salon will have to be in our hands before this reaches the eyes of our readers. We are, however, again sending a collection of pictures to H. Snowden Ward, Esquire, to be distributed between the "Exhibition" and the "Salon," in London. It is desired that these reach London in time for Mr. Ward to reproduce such as he may wish in the pages of "Photograms of the Year," and for that reason pictures should reach this office not later than September 1st. Pictures should be sent unglazed and unframed, and contributors should specify at which of the two shows they wish the pictures entered, should they not desire to leave the matter in Mr. Ward's hands. The pictures sent over last year were shown the utmost consideration, and quite a number were reproduced in the annual "Photograms." We might add that each worker so honored was favored with a handsome cloth-bound copy of that most artistic publication. Mr. Ward's kindness in the matter of giving our pictures his personal attention should be appreciated, and we can display our recognition of the fact in no better way than by sending as large and meritorious a collection as possible.

F. Dundas Todd Retires

Too late for our last issue, we learned that Mr. Todd's retirement from the field of photographic journalism was an assured fact—"released" for publication—although we have known of his intention for several months. His recent trip East was for the purpose of making the best possible arrangements, but

we were not prepared for the loss of the "Beacon" as an individual publication. It will be merged with the present "American Amateur Photographer and Camera and Dark-Room," and as the present rather unwieldy name is hardly amenable to further addition, the combination of the three will, no doubt, be known by an entirely new name, the "American Photographer" having been suggested.

While we regret the loss of the "Photo-Beacon," the deeper regret is due to the retirement of Mr. Todd, a man who has ornamented the profession by his honesty and integrity of character in a measure as generous and full as his own warm heart has ever been for his fellow workers. Always sincere, always upright, always charitable, and always honest, in actions, words and thoughts, he numbers his friends by the thousands. Under these conditions it is perhaps best that the "Beacon," as an entirety, should not risk the danger of a less worthy helmsman. We join the host of friends in wishing Mr. Todd a most full measure of enjoyment in the less trying and more homely pursuit to which he contemplates turning for the rest which he has so fully earned. May his orchard, his garden, his bee-hive, and his incubator, each prove productive beyond his highest expectations.

Visitors from Portland

Miss Randall, a member of the Oregon Camera Club, has been visiting the city, and while here visited the club rooms of the California Camera Club, where she met a large number of the members, making for herself a host of friends. Another prominent member of the Portland club, J. A. Haran, passed through the city, and also visited the local club, of which he is also a member. He paid our office a visit, and, as usual, left a most vivid impression of the progressive spirit which dominates the Oregon Camera Club.

Billie Lussier with the Artura People

We are just in receipt of a letter from Billie Lussier, and every body on the Coast knows Billy, saying that he would be in this city about the 20th of July, in the interest of the Artura Photo Paper Company. Mr. Lussier has been appointed Pacific Coast Manager for the firm, and his usual thorough manner of covering the territory will, no doubt, result in his many friends being honored with a visit at no distant day. We are pleased to learn that the attractions of the East have not permanently deprived us of one so well and widely known to the trade on the Coast.

Our New Office

Just after going to press with our last issue, we were advised that we might occupy our new office, on the seventh floor of the Call Building. This structure is the most prominent one in the city, and the most centrally-located. As a landmark, it is known to every one who has seen a picture of San Francisco, or who has visited the town. We are pleased to find ourselves again in the down-town district, and friends visiting the city can no longer make the excuse that our remote location lost us the pleasure of a call.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Exposure in Enlargement

The following paragraphs from the first part of an article by F. H. Jeffree in the "Amateur Photographer," England, will prove useful to many readers, although the statement that the law of inverse squares is universally applicable is open to question. It is based on the assumption that the source of illumination is a mathematical point, which in many enlarging methods is not even approximately true. Nevertheless, the worker who follows Mr. Jeffree's rules will waste less paper and get better results than by relying on his judgment or trial slips.

"While in negative making the factors governing exposure are well understood and most exposures are calculated from the known data, in enlarging it is generally considered impossible to arrive at the correct exposure except by a series on slips of bromide paper, a method which wastes much time and does not tend to the production of uniform results. Yet both problems are essentially similar and the latter may be solved as readily as the former if we can only rightly gauge the density of our negative which corresponds to 'character of subject' in negative making and the effective aperture at which the lens works under the conditions of enlargement.

"This is the crux of the whole matter and some writers have expressed the opinion that the density of illumination is not in this case governed by the law of inverse squares, and that therefore it is not possible to solve the problem except by the usual trial and error method. The law is, however, of universal application and when correctly understood and applied no more difficulty will be experienced in computing the exposure for enlargement than is met with in the more usual problem of negative taking.

"The rule is, gauge the intensity of the

light falling on the negative by means of an actimeter and calculate the exposure as in negative taking (multiplying by a suitable subject number to represent the density of the negative), and then multiply the exposure so found by the square of the linear enlargement plus one. Thus, if we wish to enlarge a quarter-plate negative to twelve by ten inches, or, to speak more accurately, to enlarge a part four by three inches to twelve by nine inches, i. e., a linear enlargement of three, we multiply the exposure as ordinarily found by

$$(3-1)^2 = 4 \times 4 = 16.$$

There remains the question of density of negative. An unstained negative of just sufficient density to give a plucky print on P. O. P. will be our standard and in negative taking would correspond to an ordinary landscape without dark objects in the foreground or a subject number of one. Such a negative will take about sixty times as long to produce the print spoken of below as the paper in Watkins' exposure meter does to attain standard density, i. e., one minute for every second. Having settled on the standard, any other negative may be compared with it by making a contact print of the two negatives at the same time and noting the time each takes to produce a harmonious print, i. e., not the time to produce a print suitable for toning and fixing in which as printed the shadows are all blocked up, but that which looks right as printed and not fixed, a proof, in fact. Thus, if the standard negative took ten minutes and that from which we wish to enlarge took twenty-five, the density would be reckoned two and a half."

The Limits of Stereoscopic Vision

The above was the subject of a lecture before the Royal Photographic Society, England. Quoting from a report in the English "Amateur Photographer":

"Dr. T. C. Porter who stands in the front rank of those who have helped to popularize stereoscopy, suggests an extension of the Helmholtz stereoscopic principle. He finds that what is optically known as the power of accommodation is comparatively limited in its scope for all subjects that are more than six feet away from the eyes. He finds that the effort of accommodation is altogether different from the effort of convergence. The variation in the convergence of the eyes is alone sufficient to produce stereoscopic effect apart from accommodation. Dr. Porter has made a series of elaborate tests with the object of discovering the stereoscopic limit or the point in the line of sight beyond which the eye fails to appreciate objects in relief. The distance is dependent upon the amount of space between the eyes which averages two and one-half inches. In one hundred and twenty-eight cases investigated, the average distance at which stereoscopic relief ceased was forty-three feet. In some cases it continued as high as sixty-four feet (which was the maximum), and on others it failed at twenty feet. The range of stereoscopic effect varies directly as the length of the base. The base line, by the Helmholtz principle, can be extended to several inches by means of reflectors, and Dr. Porter suggests that for purposes of stereoscopic photography the two ends of the base line might be placed several yards distant and a photograph taken at each end. Thus, so long as the objects themselves are clear enough or large enough to yield a picture, a large stereoscopic area can be taken in. By this method it should be possible to take a stereoscopic photograph of a city four miles away just as clearly as the model of the city would be to the eye three yards distant. The base line must, of course, bear the same proportion to the distance of the object as the space between the eyes—two and one-half inches to three yards. One of Dr. Porter's views, taken with a stereoscopic lens, showed Windsor Castle from the distance of a mile, the base line being one hundred and twenty-two yards.

"Dr. Porter thought that the application of this principle would have special value in time of war, when a small camera with

two plates would open up a very much greater area for stereoscopic presentation. It would also be of use in exploring mountainous country when mere magnification would not serve the same purpose. Several of Dr. Porter's stereographs of clouds were obtained by means of snap shots taken from moving ships, the ship's motion in the interval between the exposure serving the same purpose as the extended base line."

Lens and Color Screen in One

At the last meeting of the French Photographic Society, Lieutenant-Colonel Hou-daille described a lens which had been made for him by Gilmer, of Paris, one of the component glasses of which was made of uranium glass—that pale-yellow glass sometimes seen in opticians' windows. The uranium lens was a positive one and the glass was of such a character that, while to the eye, it only diminished the brightness of the picture by about ten per cent, it at least doubled the exposure necessary; thus showing that its greatest absorption was in the ultra-violet region which is responsible for the greater part of the falsity of the color rendering obtained with ordinary plates. It was pointed out that the particular uranium glass employed was not suitable for the construction of an anastigmat and its optical qualities very much limited its use.

One curious result of using the lens might have been foreseen as it has certainly been suggested before, though we cannot put our hands on the reference. It was that the lens had a marked tendency to counteract the falling off of illumination towards the edges of the plate. This follows from the fact that the yellow glass was used for a positive or magnifying lens; that is to say, it was thicker in the center than at the edges, and therefore its effect in increasing exposure was greatest in the center of the field. It seems to have been overlooked that any possible advantage which this might confer would be neutralized by the drawback that the function of the yellow lens as a color screen is performed with less and less efficiency as the center of the plate is departed from. We are afraid the uranium lens will never be more than a curiosity.—"Photography."

Paper Negatives

I have received several communications in reference to my article on the advantages of paper negatives, among others a demand for full details as to exposure, development, and the like. There is really little to add to what I have already written. The exposure is on the average from seven to ten times that which would be given a medium plate or an Eastman film. Development with amidol, two to four grains to the ounce, must be carried much further than for a bromide plate. Fix in an acid bath, being very careful of stains and do *not* attempt to make the paper transparent; that is the whole story. I note an article by Otto Riese in "Apollo" on this subject in which, among other advantages, he draws attention to the entire absence of halation, and claims for them a greater latitude in exposure. This latter I am unable to endorse. It has occurred to me that a lack of density, which is not infrequently a fault in paper negatives, could be easily remedied by superimposing thereon an ozobrome image, say in "Vandyke Brown." The range of gradation could probably be extended in this manner, and by means of local redevelopment valuable effects produced.

Dry Mounting of Prints

All who have had much experience with the wet mounting of prints, especially those of large size, as with a high polish, such as ferrotyped solio, know how many difficulties beset the worker. Dry mounting has its own trouble, but it solves all those that are inherent in the wet process. While the necessities for dry mounting are now to be had commercially, the amateur may prefer to prepare his own, and for such the following method, described by H. L. Smith in "Photography," may prove valuable:

"Starch is the adhesive used so that there need be no fear of the introduction of anything to effect the permanency of the prints; many of my old prints mounted in this way are as bright and fresh to-day as when they first were made. A good stiff cream of photographic starch (at present I am using Glenfield), is made with cold water and then is thickened by pouring boiling water into it, with constant stirring. Unless the water is actually boiling, it will take too much

water to thicken the starch and it will be too weak. As soon as it is cold it is ready for use, and it should be used the same day it is made. This applies to all starch mountants and is one of the secrets of its successful use. The prints are first dried and then have some of the starch well brushed over the back of each, after which it is allowed to dry. It is at this stage that I do the trimming. The mount is then dampened slightly with a sponge and clean water, and the dry print being placed in position on it, a piece of clean smooth zinc is laid on top of the print, and the whole arrangement is passed through the wringer with a fair, but not excessive, pressure. Only once through the machine is needed and the print comes out not only mounted without any trace of cockling, but dry and ready to be framed or posted, as may be necessary. The degree of dampness necessary depends on the nature of the mount used, but it is soon learned what each will require. If the mount is not made damp enough the print will not stick, while if it is too wet the print loses its gloss. It is one of the greatest advantages of this method that glossy prints can be mounted without destroying their shine."

New Portland Firm

The Portland Photo Supply Company, H. K. Sargent, President; H. C. Forbes, Vice-President and Manager, has incorporated for the purpose of wholesale and retail dealing in professional and amateur photographic supplies in Portland and tributary territory. The location, 149 Third Street, is in the center of the business district, the members of the firm are experienced in the wants of the trade, and these two qualifications should ensure the new firm a heavy patronage. Mr. Forbes has been connected with the photographic supply business in Portland for the last nine years, and retires from the management of the photographic department of the Blumauer-Frank Drug Company, to enter the new firm. The firm's prompt order for a regular supply of this magazine indicates a desire to anticipate the wants of their customers, and we heartily wish the new firm that generous measure of success which it will assuredly merit at the hands of the photographers of the Northwest.

Club Notes

Jamestown Camera Club

The third session of the Jamestown Camera Club was held Tuesday evening, June 11th, at John M. Cushman's, Main Street, twenty members being in attendance. After a short talk by John J. Andrews, in which the object of the Club was briefly set forth, the matter of perfecting an organization was taken up.

Mr. Cushman, who had been appointed previously to prepare a suitable constitution and by-laws, gave a preliminary reading of those which he had prepared. Following this, the proposed form was taken up, clause by clause, discussed and adopted.

Then followed the election of officers, as follows: President, Myles B. Nichols; Vice-President, John M. Cushman; Secretary, John J. Andrews, and Treasurer, Oliver Starr. Executive Committee: Decker Lee, Harry Churchill, C. Southwick, Oliver Starr, E. R. Benton and J. M. Cushman.

The trip made by the Club to Falconer last Sunday morning, June 9th, was reported very successful, and several fine prints were shown of views in that vicinity.

Anyone desiring to become an active or an honorary member of the Club should address John J. Andrews, 106 Lincoln Street. The next meeting of the Club will take place next Tuesday evening, June 18, at the same place and time.

Mr. Douglass Honored

Benjamin W. Douglass, well known to our readers as a contributor to our pages, has been appointed State entomologist, under the law of 1907, by Governor Hanly of Indiana. The "Indianapolis News" gives a notice of the appointment with a picture of Mr. Douglass and in its editorial department comments as follows:

"In the appointment of Benjamin W. Douglass as State entomologist under the new law, Governor Hanly has made

what we hope will prove to be a wise selection. Mr. Douglass, who has from time to time been associated with the State Forestry Department, is no stranger to work of the sort, while his technical and practical knowledge fits him for the work he now undertakes. He has in the past established a reputation for fearlessness and honesty and, under his inspection, nurserymen will not be long in appreciating the value of the law, which, though in many respects inadequate, still serves to protect them as well as the purchasers of their stock. The appointee is an Indianan who receives his commission from the Governor in the face of assertions from various sources that there was no man in the State competent to undertake the duties of the office. Certainly there never was a time when Indiana needed more urgently a practical as well as a scientific entomologist of courage, integrity and industry."

We are sure that all our readers will join us in wishing Mr. Douglass all success and the no small measure of honor to which his special fitting for the position will entitle him.

Wisconsin Camera Club

The July programme of this enterprising Club is as follows: Tuesday evening, July 2nd, informal talk by S. L. Stein, with exhibition of his works; Tuesday evening, July 9th, general open meeting, individual and informal talks and criticism among ourselves; bring your prints; Tuesday evening, July 16th, lecture by Dr. F. H. Berry, The Lantern as an Educator; bring slides you may have; Tuesday evening, July 23rd, lantern slide exhibit under direction of the lantern slide committee; Tuesday evening, July 30th, demonstration bromide enlarging by a representative of the Eastman Kodak Co. Sunday, July 14th, special Club run to Muskego Center with basket lunches; will leave Public Service Building at 10:15 a. m. Round trip tickets, seventy cents. Remember next print contest closes July 30th.

The Amateur and His Troubles

By FAYETTE J. CLUTE

Sodium Sulphite Unstable

In a recent issue Dr. Power called attention to this matter of the unstable condition of solutions of sodium sulphite, quoting the "British Journal" in the matter. A clipping from an unknown source, quoting the same authority, gives a table showing the results of experiments with several samples, the last two of them being the most expensive obtainable and supposedly the purest. Solutions were made up and tested at once and again at certain intervals to determine the amount of sulphite of soda present at the time of the tests. Following are the results secured with four different samples:

Fresh.	83	86	90	91
3 days	76	78	84	80
4 days	..	..	69.5	53.5
9 days	11	54	37	0
14 days	0	33	0	....
22 days	..	1	....	....

Sodium sulphite does not play such an important part in many developers beyond acting as a preservative, but used in connection with amidol, a developer which is constantly becoming more popular for bromide and developing papers, it plays an important part, and the warning which the above results convey is one that should be heeded in using this developer.

Shore and Surf Pictures

Naturally, with the extent of coast line so near, a large proportion of the pictures that come to hand for criticism are intended to represent old ocean, supposedly as he appears to the human eye, or, better still, as he appears to our mind as influenced by our impression formed through our sense of seeing. We have a vivid impression of a vast expanse

stretching away to the horizon; the color sensation is distinctively one of blue or blue green, and the sky always seems to be darker on those days which find us at the seashore. In our photographic portrayal of the scene the effect is hardly the same. Rough rocks near at hand, even though they be washed quite light in color, and, owing to the reflected light from the water, showing full detail, they come out inky black in the photograph because of the short exposure and because they were wet at the moment of exposure. The silvery sand at our feet has a trick of coming out the same way if taken just as the water recedes. Instead of an unlimited expanse of water, the photograph is most likely to show a few feet of some dark material standing up on edge like a nicely smoothed cement wall. Instead of a sky there is a large expanse of some white material, the combination suggesting a small load of coal dumped down against the gray cement foundation of a whitewashed house. This is all wrong. The horizon must be put as far back in the distance as possible. There should be just an indication of a change in tone where sky meets water at the horizon. There should be no brighting sharpness of focus at that point. The sky should be graduated darker and darker as it ascends, and at any rate dark enough so that the high lights in breakers and wave crests may still retain their values as such without having to be portrayed as drifted snow. Rocks over which the water breaks are not to be lightened too much; they are needed as darks to help send back the distance, but at the same time they are not truthfully represented as masses of jet. It is surprising how little we really see in the way of definite values as they exist before us. Try the experiment the next

time you are at the seashore, of placing a few shades of penciling on a sheet of paper to represent in their order: the sky, the distant water, water near at hand, rocks over which the water dashes, and the sand at your feet. I think you will be surprised at the short scale of gradation that results. It will in no way suggest the scale shown in the average snapshot of the scene. The remedy lies in longer exposure, or what is the same thing as far as light action is concerned, a larger stop, and recourse to some method of holding back certain portions of the negative in printing. My own preference is for "pinking out." This is simplicity itself and consists merely of staining the "thin" portions of the film, or those inclined to a too "clear glass" effect, with a weak solution of some one of the reds of the Acme water colors, applied with a brush or tuft of cotton. A little experimenting along this line will repay one a thousand fold. One can try it on a few wasters, but there is really no danger of harming a negative as a slight wash under the tap will remove all of the color if it is found that the work has not been satisfactory.

Quick Prints

I was in the photographic department in one of the local publications a short time ago when the photographer who had been out on an important detail came rushing in and sent the boy to the engraving room to say that the desired picture had been secured and a print would be ready by the time the engraver had the wet plate sensitized. And this is the way it was done: A plate was put in a rapid-working developer, the tray given a few rocks every time the photographer passed that way while getting out a package of velox, a printing frame and a thin sheet of transparent celluloid. By that time development was completed and the negative allowed to rest under the tap for a moment. Then, without fixing, the sheet of celluloid was pressed into contact with the film side of the negative and the printing proceeded with. The same developer was used and the same neglect of fixing was resorted to as in the case of the negative. Instead of attempting to dry the print after the short washing to remove the developer, the photographer simply squeegeed it face down

on a clean sheet of glass and in that condition handed it to the boy to be taken to the engraver, who fastened it to his copying easel with a couple of pins, a matter-of-fact way that suggested the frequent use of such copy. I should not neglect to advise that the sheet of celluloid was removed from the film side of the negative at the earliest possible moment before the drying of the film could cause it to stick. The negative was placed in a hypo bath for deliberate fixing and washing, all negatives being filed away for possible future use.

Speed of a Telephoto

The speed of a telephoto lens used on near objects is not the same as that of an ordinary lens, as one of our correspondents complains of having discovered. The subject is a little too complicated to be explained thoroughly in this department, but if our correspondent will look up "Telephotography," by Dallmeyer, he will find the reason pointed out. A telephoto lens of three feet equivalent focus and a stop $56\frac{25}{10,000}$ of an inch in diameter would be working at f-64 and require an exposure accordingly on distant objects. On near objects, however, it would give greater depth and require longer exposure than an ordinary lens working at f-64. The telephoto lens, in this respect, follows the same rule that governs the single view lens, although with the latter the variation is but slight. Like it, the telephoto is a lens of "inconstant aperture," and acts in the same way as the single view lens used with the stop behind. So used, the single lens gives more depth and requires longer exposure. It is not so long ago that one of our correspondents discovered that the reversal of a single lens which he was using for enlarging necessitated nearly a hundred per cent increase in the exposure. Of course, the variation is not more than perceptible when using the lens for ordinary work, but in enlarging with the single lens the conditions more nearly approach the abnormal under which the telephoto works when used on near objects, as regards the extreme variation in the "inconstant aperture."

P. A. of A. Banner Convention

Why the banner convention? For various reasons. The city of Dayton is situated in a section of our country which is probably the most densely populated of any like district, by members of our craft. If you will draw a circle two hundred miles in circumference around this beautiful city you will find more active professional photographers included than in a like radius from any other point in the Union. These men you will find possess a very high average of ability as photographers and good business men, and men who will not neglect their national organization. We therefore predict an attendance rivaling that at Boston in 1905. Dayton in itself is a most attractive city at the season of our meeting, as it is undoubtedly one of the cleanest, as well as coolest, cities of the Middle West. Our convention building could not be better located to insure coolness and comfort even in the warmest summer season, as it is situated facing the Miami River with full, wide streets on either side, thus insuring a good cool breeze at all times. The National Association has never in its history secured so fortunate a location for a convention as in the Steele Educational Building. It is ideal for the purpose, containing a large auditorium, spacious corridors, ample spaces for the manufacturer and dealer, with large, airy rooms, with a good light for all purposes.

The outside attractions of Dayton are ample for those who may tire of the regular sessions, but we doubt if any will be found who will wish to pass even a small part of the day away from the convention hall, as the morning sessions will be full of practical talks by successful men of our profession, followed by full discussions on their various topics. This will in itself be most instructive. Your Board has been so fortunate as to secure the co-operation of Professor Beck, author of "Art Principles in Portrait Photography," and well known as an art instructor of ability, who will illustrate his lecture with drawings that will bring it within the comprehension of all. This talk on the art side of photography will alone repay you for your attendance at

this convention. The social side of your stay in Dayton has in no way been neglected, as every evening will find some form of amusement planned for your entertainment. One evening will be spent at Fair Hills where a pleasurable time will be enjoyed with music and dancing, a feature which made the Niagara convention so pleasurable.

The art rooms at this convention are large and well lighted, and will be filled with the choicest examples of studio and art photography. Your Board has this year decided to select twenty-five portraits, salable portraits at that, and award the successful makers a beautiful salon certificate. This is an honor for which you should each strive, as an award of this nature given by the National Association will be of inestimable value to you, not alone as a business getter, but as a stimulus and incentive to better work. In the manufacturers' and dealers' department you will find shown all equipment required by the profession, and there will be a full representation in all lines, as the floor space for this meeting is practically all sold. It will be occupied by the most representative manufacturers and dealers in the United States, whose goods you can rely upon in every instance.

The hotel accommodations are ample and the rates reasonable. The Algonquin, the official headquarters, makes the rate of \$2.50 to \$5.00 per day, American plan; Hotel Beckel, \$2.50 to \$5.00; Hotel Phillips, \$2.00 to \$4.00; Hotel Atlas, \$0.75 to \$2.00, and Hotel Datonia, \$1.50 to \$2.00—all American plan. There are also any quantity of rooms to be secured in private families, from fifty cents per day up, and plenty of cafes where the best of service prevails. You may be assured that you will be well cared for in this respect.

In conclusion, I would earnestly urge you to attend this meeting and partake of the many good things in preparation. You can not afford, for the small expense involved, to stay away from this, the banner convention, at Dayton, Ohio, August 6, 7, 8, and 9.

FRANK W. MEDLAR,
Sec'y P. A. of A.

Notes and Comment

\$1500 in Cash Prizes

The Eastman Kodak Company, in announcing their novel photographic advertising contest that is open only to the professional, say: "We make the first prize in our photographic advertising contest one thousand dollars because we want to prove to the world that there are men who can furnish us with photographs that are better, from an advertising standpoint, than anything that can be drawn.

"Photography is already taking an important part in advertising. Every issue of the great magazines shows how the advertiser is making use of photography in exploiting his wares. But there are undeveloped possibilities. In advertising there is work for both the portrait photographer and the commercial photographer. The man who has a patent churn turns to the commercial photographer for a picture of that churn, but in developing his business he is likely to turn sooner or later to the portrait photographer for a picture of an attractive girl operating that churn. For the professional photographers who can combine good, clean photographic work with an advertising idea there is good business at their own price.

"For the double purpose of demonstrating the possibilities of photography in advertising and at the same time securing for ourselves a series of superior pictures to be used in our Kodak advertising, we are offering fifteen hundred dollars in cash under very simple conditions.

"The work will, we believe, prove interesting to every lover of the art and is likely to prove profitable by leading up to a new and as yet uncultivated field. Besides, the prizes are worth while.

"Terms: 1. Each picture is to contain a figure or figures and is to be suitable for use as an illustration in advertising the Kodak or the Kodak system of amateur photography. 2. Each entry to

consist of three pictures 8x10 or larger.

3. Prints only are to be sent for competition—not negatives. 4. Prints must be mounted but not framed. (Mounts should show about one inch margin.) 5. No competitor will be awarded more than one prize. (This does not prevent a competitor from entering as many pictures, in sets of three, as he may desire.) 6. Due and reasonable care will be taken of all non-winning prints, and, barring loss or accident, they will be returned to their owners at our expense, but we assume no responsibility of loss or damage. 7. The negatives from which all prize-winning prints are made are to become the property of the Eastman Kodak Co., and are to be received by it in good order before payment of prize-money is made. 8. Contestants who are awarded prizes must also furnish to us the written consent of the subject (in the case of a minor, the written consent of a parent or guardian) to the use of the pictures in such manner as we may see fit in our advertising. 9. All entries should be addressed to Eastman Kodak Co., Advertising Department, Rochester, N. Y. 10. In sending pictures mark the package plainly, 'Photo-Advertising Contest,' and in the lower left-hand corner write your own name and address. Then write a letter as follows: 'I am sending you today by charges prepaid, ...prints. Please enter in your Photo-Advertising Competition. Yours truly, ...' 11. The name and address of the competitor must be legibly written on a paper and enclosed in a sealed envelope in the same package in which the prints are forwarded. There is to be no writing on prints or mounts. 12. We will promptly acknowledge the receipt of pictures, and when awards are made, will send each competitor a list of prize winners. 13. Only recognized professional photographers conducting a studio will be allowed to compete. 14. This contest will close November 1, 1907."

Five Thousand Dollar Prize Goes to Miss Hanscom

Herewith we reproduce the design for the emblem to be used in connection with the Alaska-Yukon-Pacific Exhibition, the work of Miss Adelaide Hanscom, a former resident of Berkeley, California, who has been located in Seattle since the fire. Miss Hanscomb is well known through her artistic photographic productions, her illustrations of the Rubaiyat of Omar Khayyam having become a classic. She studied for three years under Mrs. Loosley in Berkeley, California, and then took a year's course in designing at the University of California. After that, Miss Hanscom took a three



sign which consists of a group of three female figures, the significance of which Miss Hanscom explains as follows:

"The figure to the right typifies the Pacific Slope with right hand extended in welcome, and the left holding a train of cars, representing commerce by land. The figure to the left represents the Orient, and the ship in her hand represents commerce by sea. The central figure in white is that of Alaska, the white representing the North and the nuggets in her hands representing her vast mineral resources. Across the sky in the background is seen the Aurora Borealis so vivid in the North. The purple background with the many colors of the northern lights makes a rich coloring. At the side of the figure on the right are tall trees, typical of the immense forests of the territory represented by the Exposition. My whole idea in this design was to keep it simple and still give suggestions of all the essential things to be represented."

All other expositions have had the official emblem copyrighted. The Alaska-Yukon-Pacific Exposition will in this, as in so many other things, break new ground. The emblem will be free to the use of all, and merchants, traders and all classes will be encouraged to use it and thereby assist in advertising the Exposition to the farthest corners of the world.

years' course in drawing and colors at the Hopkins Institute. Afterwards she was appointed superintendent of drawing in the Berkeley schools.

Later Miss Hanscom entered the professional field and fitted up a photographic studio in San Francisco, which she retained till the fire of fourteen months ago. While there, she illustrated many articles for the leading periodicals. Miss Hanscom won this prize by the unanimous vote of the publicity committee, and in competition with the leading artists and designers of America. Some hundred off designs were submitted, and many of these showed great ability. But the one chosen alone filled all requirements: significance, comprehensiveness and accuracy of line, harmony of color, and suitability to the occasion.

The successful emblem is circular in form. Between black circles the words "Alaska-Yukon-Pacific Exposition: Seattle, 1909," appear in bold lettering. Within is the de-

Concerning Post Cards

In connection with the interesting advertisement of post cards which will be found in our advertising section it might be advisable to reprint the following from the June 22nd issue of "The Publishers' Weekly" as bearing upon the subject. It says: "The American Photocolortype Company, 337-339 Dearborn Street, Chicago, calls attention to its unusual facilities for making post cards to order from photographs, in photosimile (sepia tone), phototypes (carbon effect), or color-photos (natural colors), at prices no higher than dealers now pay for "stock" subjects. This company makes post cards from any size photograph or print and offers to deliver the finished work in ten days' time. Hundreds upon hundreds of scenes along routes of transportation by land and water are in process of reproduction by this company at the present time, embodying one of the most representative collections of American scenery ever assembled. More than two hundred

railroad and steamship companies have contributed their choicest views for this series, which will be a revelation to the dealers throughout this country and the world generally when put on the market. This company manufactures goods to order exclusively and it is practically as cheap for a local dealer to get this company to make post cards of views in his locality as it is to get a lot of miscellaneous picture post cards, that have no relation to his surroundings and that may be had anywhere else in the country. Not that we would discourage stocking up with everything good that sells, but every dealer should first be able to show exclusive cards showing scenes of his neighborhood. The post cards made by the American Photocolor-type Company are made with lasting colors, impervious to the elements, and like good wine improve with age. The difficulty experienced by dealers handling post cards made by photographers on sensitized paper (which fade as soon as exposed) has led many dealers to throw these goods out entirely as the risk is too great in handling such goods. This company's post cards are produced with pigment colors and are permanent and non-fading. It is claimed that three thousand millions of post cards were sold in 1906. How many more millions will be sold from now on simply rests with the wise, enterprising dealers who will act at once in supplying the demand for post cards by the American public which is really just beginning."

"The Prism"

This is the title of a beautifully printed little magazine that, beginning with the issue for June, will be published monthly to be sent free of charge to any one interested in the products of the Bausch & Lomb Optical Company. Quoting from the title page, the publication is, "a little magazine concerning the world of wonder and beauty revealed by the lens." A beautiful illustration in sepia serves as a frontispiece and the articles include such captions as: The Inner World, A Talk About Lenses, Star-Dust, Photography and Art, Prisms, and the like. All our readers should hasten to get their names on the mailing list by addressing a request to the Bausch & Lomb Optical Company, Rochester, N. Y.

The American Annual of Photography, 1908

Tennant & Ward, of New York, advise us that they have taken over the publication of the well-known "American Annual of Photography" from its former owners and are now busy with the preparation of the 1908 volume, which will be edited by John A. Tennant. Good as the "Annual" has been in past years, the new owners desire to make the 1908 issue better than ever, more useful in its information and more attractive in its illustrations. In this they ask the co-operation of all photographers in the shape of articles dealing with photographic experiences or pictorial work of unusual interest. Correspondence or contributions made for the "Annual" should be addressed to the Editor of the American Annual, Tennant & Ward, 287 Fourth Avenue, New York. As the book is made up during the summer months, contributors are urged to send their articles or pictures with as little delay as possible.

A Change at Palo Alto

Harry B. Robinson of Palo Alto announces that he will purchase the Eastman photographic agency and finishing business now conducted in that city by F. L. Crandall, and after July 1 may be found at the University Drug Store, where he will be better prepared than ever to do finishing and developing, employing the same workmen as heretofore.

Former Residents of Buffalo

James W. Greene, the chairman of the publicity committee, Buffalo Old Home Week, desires all of our readers who are former residents of Buffalo, New York, to send their names and addresses to the committee in order that souvenir invitations to Old Home Week in Buffalo may be sent to them. September 1st to 7th inclusive has been determined as the date, and the invitations will no doubt prove most interesting and worthy of consideration by all former residents of that progressive city. Addresses should be sent to Publicity Committee, Buffalo Old Home Week, 207-215 White Building, Buffalo, New York.

Highest in America

Herewith we show a picture of the new stack at Kodak Park—the highest in America.

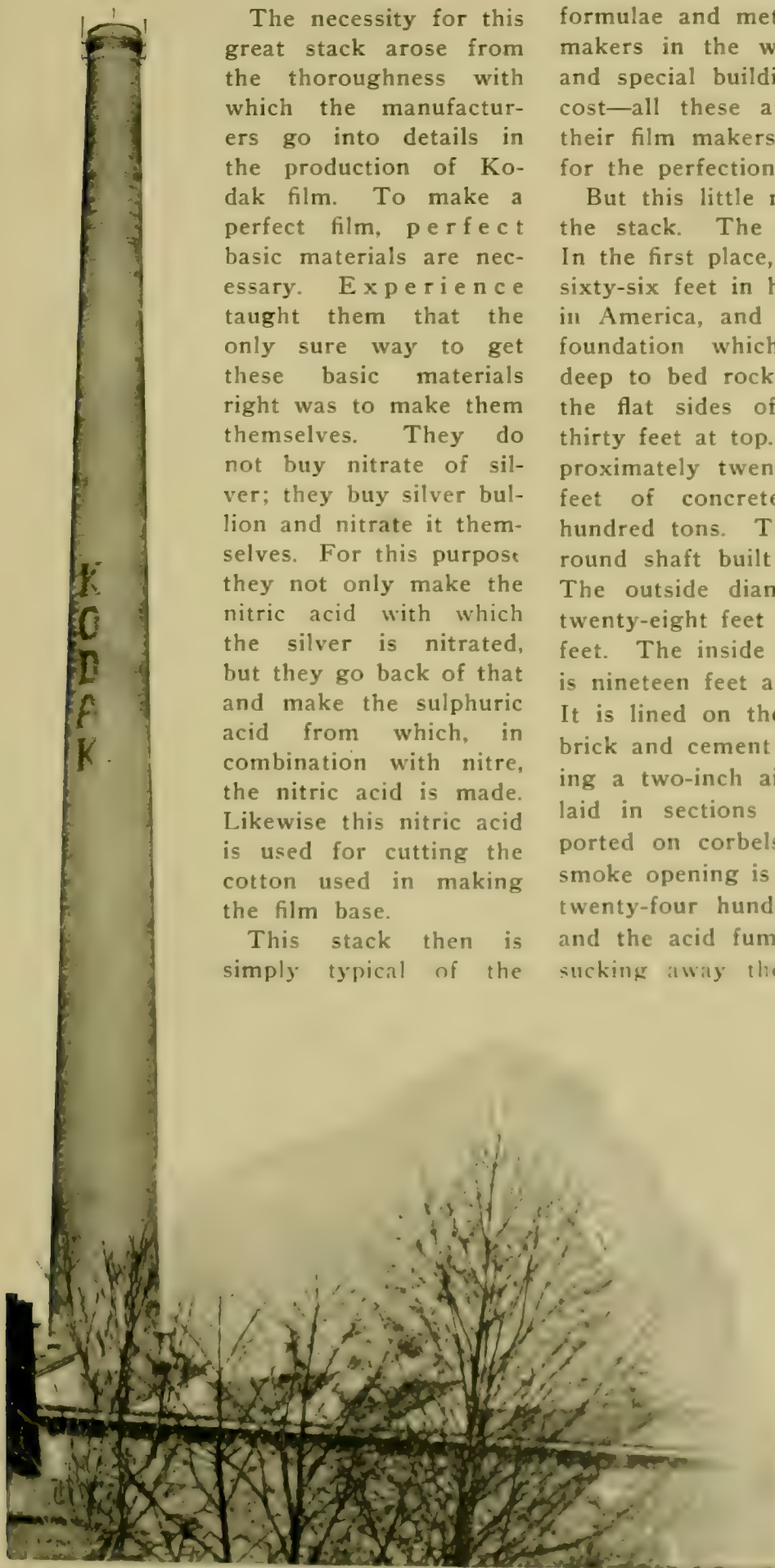
The necessity for this great stack arose from the thoroughness with which the manufacturers go into details in the production of Kodak film. To make a perfect film, perfect basic materials are necessary. Experience taught them that the only sure way to get these basic materials right was to make them themselves. They do not buy nitrate of silver; they buy silver bullion and nitrate it themselves. For this purpose they not only make the nitric acid with which the silver is nitrated, but they go back of that and make the sulphuric acid from which, in combination with nitre, the nitric acid is made. Likewise this nitric acid is used for cutting the cotton used in making the film base.

This stack then is simply typical of the

thoroughness—typical of the lengths to which they go in reaching perfection in every department of film production. Years of experience, ready access to the formulae and methods of the best plate-makers in the world, special machinery and special buildings at no matter what cost—all these are at the command of their film makers, all of which accounts for the perfection of Kodak film.

But this little notice was to tell about the stack. The figures are interesting. In the first place, it is three hundred and sixty-six feet in height, the highest stack in America, and it rests on an octagon foundation which is twenty-three feet deep to bed rock; it is forty feet across the flat sides of octagon at base and thirty feet at top. The base contains approximately twenty-three thousand cubic feet of concrete and weighs sixteen hundred tons. The chimney proper is a round shaft built of hollow radial brick. The outside diameter at the bottom is twenty-eight feet and at the top is eleven feet. The inside diameter at the bottom is nineteen feet and at the top nine feet. It is lined on the inside with acid-proof brick and cement four inches thick, leaving a two-inch air space. The lining is laid in sections twenty feet high, supported on corbels from the stack. The smoke opening is 6x12 feet, providing for twenty-four hundred horsepower boilers, and the acid fume inlet, 4x4 feet, is for sucking away the acid fumes from the

chemical manufacturing departments. The bricks used in the stack are radial in shape and have hollow air space perforations in them. They are about five inches high and six and one-half inch face. The length of the bricks varies from ten and one-half inches long to four and one half inches, there being five different lengths used. The stack is provided with a lightning rod having four carbon points and



is equipped with an iron ladder on the inside and one on the outside. The total weight of the stack is about three thousand two hundred tons. The letters, "KODAK" on the stack are seven feet three inches high, and are spaced nine feet nine inches from center to center, the bottom of the lower K being two hundred and four feet and top of the upper K two hundred and fifty feet above the top of foundation.

A Correction

In our April issue we gave a description of and commented upon the excellent quality and adaptability of the Graphic Enlarging and Reducing Camera. Through an error on our part the prices of another most popular accessory, the Graphic Focal Plane Shutter, were substituted for the right ones, which should have read: No. 1 Graphic Enlarging and Reducing Outfit, taking all size negatives up to and including 5x7 size, \$28.00; No. 2, all up to and including 8x10 size, \$35.00, and No. 3, up to and including 11x14 size, \$45.00. The attention which this excellent camera has attracted has resulted in a vast amount of orders and we regret most deeply that this mistake on our part occurred, as it has caused considerable annoyance to many of our readers as well as dealers and the manufacturers. We would advise all of our readers to look up the camera if they are near a large dealer, or write the Folmer & Schwing Company, Rochester, N. Y., for a descriptive circular. The use of small cameras and subsequent enlargement of the results is growing more popular every day and even the production of large prints from fairly large glass plate negatives is becoming a more common practice. For this reason the placing of this camera upon the market is particularly timely. The quality of the goods turned out by the Folmer & Schwing Company needs no words of praise from us and this instrument is certainly up to their usual high standard.

A New "Seed" Manual

We are just in receipt of a copy of a most excellent booklet on the subject of negative making from the amateur standpoint, with special reference to Seed products. Get one of your dealer before

the supply is exhausted, and if he is not able to supply you with a copy, drop a card to the M. A. Seed Dry Plate Company, St. Louis, Missouri. Just to give you an idea of the fund of information the booklet contains, here are a few of the titles: What to Work for, Landscapes, Interiors, Portraiture, Flash Lights, Copying, Exposure, Development, Factoral Development, Tank Development, Fixing, and a number of others. In fact, the thirty-six pages are crowded with information that should be in the hands of every camera user, be he tyro or advanced worker. If the advice which this little book contains were absorbed and applied by the users of plates there would be a great falling off in the production of poor negatives. Almost every possible question concerning the making of good negatives is answered and the advice given is certainly of the soundest.

A Money-Making Proposition

We have received from the American Photocolortype Company, samples of their post cards gotten out in the regular way of business, covering a wide range of subjects and in varying tints, all most effective productions. The firm is particularly desirous of getting in touch with the photographers throughout the country, believing as they do that they can make for him cards that will sell more readily than any he can make for himself by photography, and make them at from half to three-quarters less cost than anything he can produce. They make it possible for the photographer to compete successfully with those who flood his territory with cheap cards of an inferior quality. The local photographer can secure passable half tone cuts and entrust them to the mercy of a printer who does little of this work, thus producing a cheap card; but neither the cost nor the results will compare with the samples we have seen of the work turned out by the American Photocolortype Company, 337-339 Dearborn Street, Chicago. At least write them for samples and prices and investigate their proposition. The post card business is still in its infancy, still growing, and all the wide-awake photographer need do is to avail himself of the facilities offered by this firm and stock his local stores. He has a decided advantage over the outside competitor who must skim the territory both in making the views and in taking and filling the orders.

CAMERA CRAFT



San Francisco, California

Insist on Correct Color Values

If they are in your negative you
will get them by making
your prints on



SEND FOR A CYKO MANUAL

The Anthony & Scovill Co.
Binghamton, N. Y.



TWIN PALMS—PEARL CITY, HONOLULU
By CHARLES L. OWENS

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

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SAN FRANCISCO, CALIFORNIA, AUGUST, 1907.

No. 8

Night Photography

By M. A. YAUCH

Illustrated by the Author

Those who have never attempted night photography know nothing of the pleasure that is to be derived from taking one's camera out on a midnight tour of the town. Well-lit streets and public places are of course the best suited, but an engine standing amidst the most unpromising surroundings, its head-light throwing a few strong shadows into prominence, or the porch of one's own home with the light from the inside of the house streaming through the curtains, and other such subjects, will often prove available material. In



the first case there is always a danger of the engine moving off before the exposure is completed, and in the second instance the weakness of the light will demand a long exposure, but such pictures will add variety to one's collection.

But I hear someone ask, "Midnight?" with a tone of surprise. Well, no, not necessarily; but for certain classes of night pictures you will find midnight more convenient. You will be less annoyed by vehicles and people getting in front of the lens than earlier in the evening, and at the later hour you will avoid the necessity of answering so many foolish questions propounded by passers by. However, any hour of the night will do, provided you go with a good supply of patience, are well prepared to be "jollied," and above all things to take this last form of annoyance good naturedly.

The best method of securing good subjects for night work is to keep one's eyes constantly open when out of an evening, and locate promising subjects. When a subject is found and the opportunity affords, take the picture. Even making a business of the search will be found of the greatest interest. Such a tramp about the busy streets of a town, looking for night pictures, will prove



very enjoyable to the worker who has tasted the pleasures of night photography enough to have some idea of the situations most suitable. Particularly will this be the case if the photographer be one of that vast army of amateurs whose occupation is somewhat sedentary, and whose available time is restricted by none too short business hours. Weather imposes no restrictions, in fact, one will find that the best effects are to be secured by making exposures during or directly after a rain or snow storm, as either serves to soften the hard contrasts caused by the artificial light.

The pictures which accompany this article have not been selected for their artistic value, but rather as showing the results of experiments which will serve as a guide to others who may wish to take up the work. I find that there is a wide range of exposure allowable, for the reason that we are not all agreed as to just how distinct objects should be represented in a night picture. A person coming directly out of a well lighted room will find a street,

even a well lighted one, to appear somewhat dark, while a few minutes later, after the eyes have adjusted themselves to the weaker illumination, the scene will appear much better lighted. In addition to this, the depth to which printing is carried will permit one to secure varying effects from the same negative. To still further simplify the matter of exposure, the question of the hour and season does not enter into the calculation as is the case with ordinary daylight exposures. For these reasons one is hardly liable to lose a single exposure through wrong timing after a few experiments have been made.

While taking the picture of the Bijou Dream about 10 p. m., one evening, I had an audience of eight or ten people in a very few minutes, with two news boys playing tag around my tripod. The only way in which I could rid myself of these last was by telling them to go over and have their picture taken.



A WET NIGHT

The shutter was opened as soon as they started, and by the time they were in position the picture was taken. During the time, I was being asked all kinds of fool questions by my ever-increasing audience and one gentleman, the proprietor of a store with illuminated signs, asked me to take a photograph of it, which I afterwards did; since then taking quite a number of night pictures of show windows with illuminated signs, and finding it quite profitable.

One reason why many amateurs fail to take up night photography is their belief that elaborate apparatus, special lenses and the like must be used. Some writers advise that a special plate and special development be employed. In theory this may be all very well, but in practice it is not at all necessary. An entire absence of halation would not give a correct picture, and if one will avoid pointing the lens directly at an unscreened arc light quite close to the camera, little trouble need be expected. It is always best to set up the camera in the shadow of a wall, lamp post or tree, so that a strong light does not reach the front surface of the lens. People walking about in front of the lens



A WINTER'S NIGHT

will not show in the picture if they keep in motion. Should one of these pedestrians come to a halt in a well lighted portion of the view it is well to hold the slide or drop the focusing cloth over the lens until he passes on. A street car or carriage carrying lights should be given the same treatment until they pass out of the view, or each light will form a dark streak on the negative, and a corresponding light streak on the print. This is all the more noticeable if isochromatic plates are being used.

The details concerning the four pictures which accompany this article are as follows: "Bijou Dream"; Korona camera, Turner-Riech lens, Banner X plate, light snow falling, twenty seconds' exposure with open lens, pyro developer, tray development. "Union Clothing Company's Store": same as last, but no snow falling, thirty seconds' exposure, open lens, and M-Q tank development. "A Wet Night"; same as last, except heavy rain falling, and ten minutes' exposure with f-8. "A Winter's Night"; same as last, except that heavy snow was falling, and nine seconds' exposure given with open lens, with arc light twenty-five feet distant and outside field of lens. An umbrella and a large rubber focusing cloth was used to protect the camera and myself during the exposure of the last two, which were made between twelve and one o'clock. With the exception of the first, which was made on the main street and at an early hour, comparatively, I have never been troubled answering questions or by people getting in front of the lens.

A Modern Castle

By F. W. KELSEY

Illustrated by the Author

Not long since, while spending a vacation among the mountains north of Escondido, I chanced upon a bit of picturesque winding road, whose natural beauty appealed so to me that I determined to follow it and see for myself where it ended.



WORELAND CASTLE FROM THE WEST

My only companion was my camera, which generally accompanies me upon trips of exploration, and my thoughts were uninterrupted as I strolled on, now around the base of a hill of almost solid granite, now through vistas of beautiful live oaks, whose dark-green foliage is so restful to the eye of the traveler. Upon emerging from one of these groves the reader can imagine my surprise when I beheld, just ahead of me, a view which caused

my thoughts to revert to the scenes depicted in the tales of the Scottish Chiefs, which I had read when a boy. The scene before me was nothing more nor less than a rugged eminence crowned by a rock-built tower; a truthful representation, on a small scale, of the feudal castles, whose battlements surmount many of the rugged crags of Scotland.

The view seemed to fascinate me, and I threw myself down in the shade of an oak and watched the tower while the lights upon it changed as the sun sank lower and lower in the west and was followed by the ever-changing after-glow.

Suddenly realizing that the night was upon me, I decided to push on to the castle and at least ascertain if it were inhabited. Upon my arrival I was greeted by the head of the house, Mr. Isaac Frazee, who, I afterwards learned, is known by the people of that region, as the "Moosa Poet."

I learned from Mr. Frazee, that the structure was planned and built by himself, and has been occupied ever since by his happy family.

The hospitality of the home was freely extended to me by the host, and, as I was desirous of knowing more of the place, I was glad to accept and remain over night.

Asking about the origin of the name of the canyon, viz., the "Moose," I was informed that it was simply a shortening of the old Indian name, "Parmoosa," which, being interpreted, means, "The old man with the white beard."

The accompanying picture will aid the reader in seeing the origin of this name, for in the Winter, when a brawling mountain stream tumbles down the canyon, at a point not far above the tower, a foaming water-fall forms the beard, and the rocks above, the profile, of an Indian patriarch, revered by the tribes who used to inhabit the surrounding country.

The house itself is called by its builder, "Woreland Tower," and the air of mystery which surrounds the place is augmented by the many quaint relics accumulated by its owner. Perhaps one of the most interesting of these is an old timber, about fourteen inches square and over twenty feet in length, hewn out by hand from a straight pine on the top of Palomar Mountain in 1798, to aid in the construction of the San Luis Rey Mission. Tradition tells us that many of these timbers were brought from the mountains to the Mission site, a distance of nearly thirty miles, on the shoulders of the Indians, who worked in relays. These timbers were, when found to be suitable for their respective places, annointed with oil and blessed by the Padres, or Priests, after being lifted upon the shoulders of the Indians, and the bearers were strictly enjoined not to allow the timbers to touch the ground until they had reached their destination.

The timber now at Woreland Tower had been allowed to fall to the earth, and, being thus defiled, was not considered fit material to occupy a place in the sacred edifice, so was discarded and left during all these years where it fell. Mr. Frazee, learning its history from some of the old Indians, obtained the timber and transferred it to Woreland, there to occupy a place in the construction of his home.



INDIAN PAINTING ON ROCKS
NEAR WORELAND

WORELAND CASTLE FROM
APPROACH AT EAST

THE MOOSA POST OFFICE

THE FAMILY GROUP
(The "Moosa Poet" and his household)

FARMOOSA FALLS
(Observe the profile in rocks and the white beard)

Directly across the narrow canyon from the castle, on the smooth and somewhat protected surface of a great boulder, some twenty or thirty feet in height, is a well-preserved Indian painting, a good example of many that are found on the rocks of the surrounding mountains.

The fact that these paintings are generally in conspicuous places, and near the old trails, suggests that they may have been used, like guide boards, to tell the Indian traveler the distance and direction to water, or to the next village.

Moosa can probably boast of the smallest postoffice in the United States, the inside measurements being thirty-two by thirty-four inches and but little more than six feet high. This office, however, is very pleasantly located in a clump of sycamore trees, and is well equipped; having scales, cancelling and dating stamps, money and stamp drawers, private boxes, and the like. I found the office to be presided over by Mr. Frazee, the proprietor of Woreland, and from the recollections of my pleasant experience in the quaint spot, I am sure that if any one of my readers should find himself in the vicinity, he would meet with a hearty welcome at the castle, and upon his departure would carry with him pleasant memories of his visit.



GOING TO EARLY MASS—PERUGIA

By WENDELL G. CORTHELL

Perugia Sits for Her Picture

By WENDELL G. CORTHELL

Illustrated by the Author



NOONDAY NAP—BRITTANY

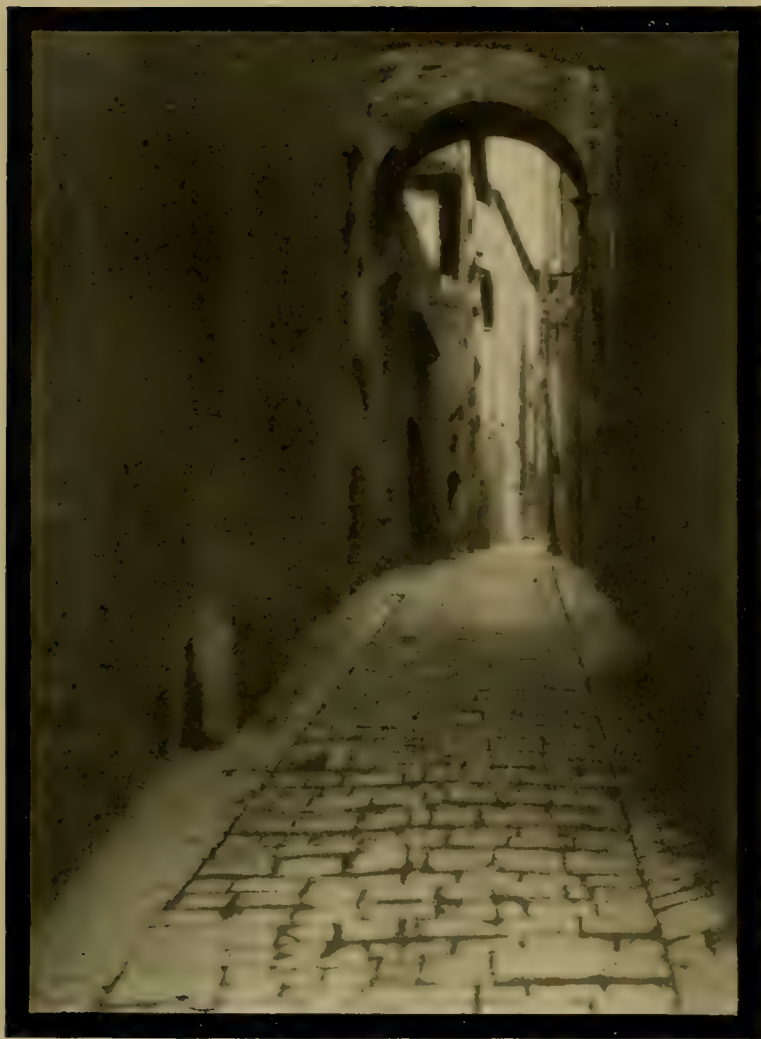
WELVE HUNDRED FEET above the Umbrian plain and the Tiber, sits the old Etruscan city of Perugia. Her walls were laid before Romulus built his city farther south which became the Eternal City of Rome. The walls of Romulus have been on Palatine Hill for twenty-seven hundred years, but Perugia began three hundred years before, and the massive stones she then laid are yet in position. 'Think of taking the picture of a street three thousand years of age, of walls that antedate our Savior more than a thousand years! And yet there they are and one may realize that the hands of one hundred and twenty generations have touched these stones that we now touch, and drank at the same fountains that now slake our thirst. Never for one day during all these centuries has the stream of human life ceased within the

ancient gates of the queen city of the Hill Towns of Etruria.

Few American travelers stop in their hurry from Rome to Florence to visit the picturesque and beautiful city that sits on her grand hill and ever looks over to her quiet neighbor that has become famous for her great Saint Francis,—even fair Assisi. We had heard of Perugia, had read her thrilling story of internecine strife, knew that she was the chief of the famous Hill Towns of the Etruscans, but previously we had taken the express through from Florence to Rome by Siena. Now with a camera in hand we sought less conventional places. That is one advantage of the camera. With it we are ever trying to find the unusual. There is a charm in rare scenes, at rare hours and in rare places. At any rate, we went to Perugia last summer because other Americans did not go there. We hoped to find a good hotel, that decent roads would be ours, that not too many smells would greet us, that we could endure the dirt while we enjoyed the picturesqueness.

What was our joy in finding at the station a fine automobile hotel bus which whirled us over a perfectly macadamized zig-zag road up the twelve hundred feet to the gate of the old city, and there inside the massive walls of other days we found a better hotel than many an American city can boast.

No American city with which we are familiar has streets so clean and well paved. The city has no smells, is lighted by electricity, is sweet and



WHERE MEN HAVE WALKED FOR THREE THOUSAND YEARS

fresh and altogether an improvement on New York or Boston. But the picturesque is there, and for a week our camera was in demand. The views off over the Umbrian plain are superb.

Assizi sits on a neighboring hill, the Tiber rolls below, the vegetation is semi-tropical, the olive trees and vineyards speak of Italy, the ancient buildings tell the history of past generations, the market place resounds to the clatter of feet and displays its vegetables and stuffs as it did in the days of the Baglioni, the same churches are open to us that received Perugino and Raphael and the Popes of the Middle Ages. Although Perugia has the modern comforts, yet it retains its

marvelous color of life which so fascinates the artist and the man with the camera. It is yet all like a theater. As we wander about her streets, palaces and churches we recall the stormy history that for centuries has left its scars on the beautiful town.

It was one of the twelve cities of the Etruscan League, was reduced by Rome in the third century B. C., was taken by Octavian in 40 B. C., and almost utterly destroyed with its wealth of palaces and temples, leaving but little trace behind but the indestructible Etruscan walls which still exist. It again arose from its ashes and was rebuilt by the great Augustus, who gave it the name of Augusta Perusia. It was besieged and taken by To-



MORNING GOSSIP—PERUGIA



OFF OVER THE UMBRIAN PLAIN



COUNTRY PEOPLE GOING TO MARKET

tilla in 549 A. D.; was ruled by the Popes and the Baglioni family; surrendered to Julius the second, and even fell into the hands of the Austrians, but at last found rest and peace in United Italy in 1860. All these changes have left their traces, which are visible today and ready for the records which the camera so faithfully carries away to the lands beyond the seas.

And here is my opportunity to pay a well deserved tribute to my ever present companion, the camera. Always at command, always ready to record the scenes which seem worthy; without its aid I would have but memory, an ever decreasing source of pleasure, to fall back upon. With the camera all this is changed, and further, the facility with which one's friends can be allowed to

share the pleasure and see the scenes through which we travel, gives added zest and increased enjoyment.



A MEDIEVAL GATEWAY



PERUGIA, THE QUEEN OF THE HILL TOWNS



OLD BRIDGE OVER THE TIBER

A Business Help

By B. W. ADAMS

As I have recently installed a new system of registering my negatives and keeping my studio accounts, and found it a great improvement over old methods, I will pass a description of it along in the hope that it may contain suggestions that will be of benefit to the rest of the fraternity. Most of the photographers of my acquaintance are still clinging to the good old method which involves the use of a studio register, order book, negative register and cash book, or at the best, a combination of them all in one large and unwieldy volume.

My own experience with this old method was anything but satisfactory: the books were invariably mislaid and a great deal of valuable time was wasted in keeping things straight. Besides, at the end of the month I was compelled to go through them all in order to make out my bills and find out how I stood.

The card index system, while not a new idea, has apparently never been applied to a studio register; at least, none of the manufacturers list a suitable form. For my own use I had cards printed as shown herewith, and find that they answer every purpose. They show at a glance the name and address of the customer, date of sitting, consecutive number of the negatives, number and size of negatives made, and all other details. Each card will

hold all these particulars concerning four sittings, and the right-hand end of the card carries a regular ledger account with that particular customer. To enumerate a few of the advantages of a card system like this over a studio-register is an easy matter. It costs less and requires much less time. It gives a complete record of every detail connected with the work of each customer. It is a complete and indexed ledger of your accounts in the most convenient form. It carries no dead matter and never becomes crowded, and all accounts are kept directly under your eyes until closed.



THE HOME-MADE, TWO DRAWER CABINET AS DESCRIBED
Upper drawer used for open accounts, lower for accounts that are closed

The cards are the regulation size, 4x6 inches, and cost, printed, about three dollars a thousand, good manila stock. The cabinet can be bought of any dealer in office supplies, but I made my own at a total cost of twenty-five cents for lumber and brass fittings, and find it answers the purpose as well as the more expensive article of the stores. I am quite sure that any

Name

Address.....

	DATE				Dr.		Cr.	
Date of Sitting								
No. of Order								
Negatives Made								
Proofs Sent								
Proofs Returned								
Pictures Delivered								
Mounts Used								
Number Ordered								
Paper and Finish								

Remarks :

photographer taking up this system will thank me for bringing it to his notice. For my own part, I would not relish returning to the old and complicated system, now that I have enjoyed the advantages of the card index method of keeping track of my customers and their accounts. Any system that will do away with the work of bookkeeping, or even minimize the work, is a blessing to the average photographer, particularly as he is more inclined to be more interested in the art side of his work, rather than in the ledger and business system, although it is owing to a lack of system that many fail.

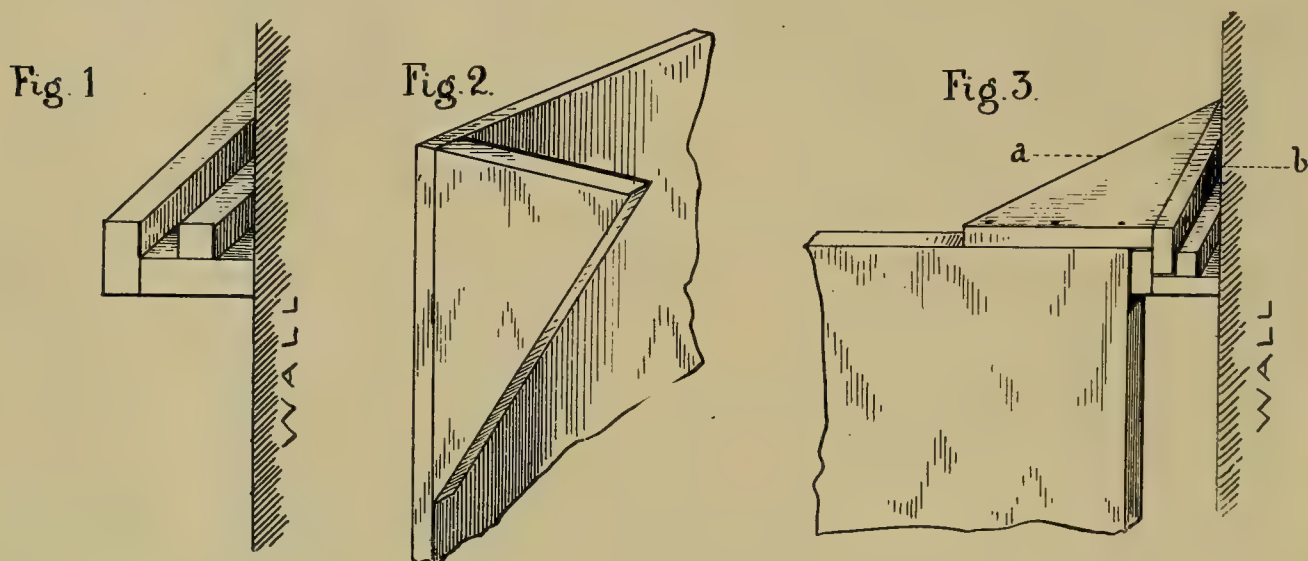
A Convenient, Yet Permanent, Enlarging Easel

By T. H. HOLMES

A permanent enlarging easel that is always ready, yet never in the way, taking up no floor space, having rigidity, yet movable at a touch, always square and plumb, yet, if desired, with a movement for the correction of horizons out of line, and always centered throughout its movement between the lantern and the wall which limits its travel; such seems like an ideal never to be realized. However, I am using one that answers all these

requirements—and more, and its construction costs very little of either time, trouble or money.

A drawing board, an inch plank two feet long and one foot wide, and an oak strip fifteen inches long by two inches wide, completes the easel proper. The track is made from a plank six inches wide and the desired length. This is cut into three strips, one, two and three inches wide, respectively, seeing that the cuts are true, so that the edges are straight. Screw the two-inch strip to the edge of the three-inch one and then screw the one-inch strip onto the three-inch strip also, setting it back an inch from the edge, as shown in Fig. 1. This completes the track, which should be fastened to the wall in a perfectly horizontal and level position. The front edge must be straight, and any inequality in the wall itself can encroach upon the unused inch of the three-inch strip which comes in contact with it.



Remember that the face and front of this shelf which the strip forms must be level and straight. This is important, but easy to secure.

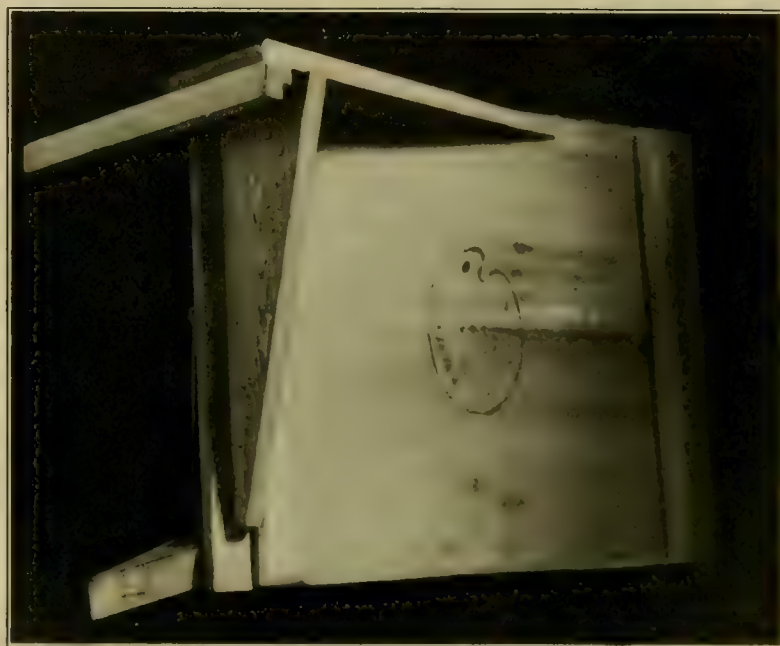
In constructing the easel the object is to secure the fifteen-inch strip to one upper corner of the drawing board in the form of a T, one side edge of the board forming the stem of the T, so that the strip will slide in the groove in the shelf-like track which we have just described. The board will then stand out at right angles to the wall, but, as a single fastening where the strip crosses the board would allow some play, it must be braced in two directions. A piece of board one by two feet will make two triangular pieces when sawed through from opposite corners. These should be cut from a piece having its sides properly squared. One of these triangular pieces should be screwed to the easel at the wall end; the other being screwed on top of these two, as shown at a, Fig. 3. This last triangular piece must project towards the wall some one and one-quarter inches, and to this projecting edge is screwed the fifteen-inch strip, b, Fig. 3, which travels in the track, as shown. A wedge-shaped block is used to hold the lower corner of the easel away from the wall, and by adjusting this one can instantly bring the edges of the paper on the easel parallel with the horizon or any important perpendicular lines of the projected image on the board.

The position of the first triangular piece insures the easel hanging plumb, and the second triangular piece its standing out square and at right

angles with the track, as it controls the exact position of the hook piece which slides in the slot or track in the shelf-like support. A slight touch near the upper corner next the wall will move the easel, whereas the same or even a much greater pressure near the center of the easel will cause the hook piece to bind in the slot. The board may be lifted from the track and stowed away, if desired, although I find it more convenient to push it out against the end wall where the track ends, when not in use.

My enlarging lantern is in the corner of the room, with the track running along the wall between it and the opposite corner. The lantern is mounted on a stand, the lower portion of which holds a half-dozen cheese-cloth-covered frames that slide in like a chest of drawers. These are used for drying prints, and have a six-inch space between the frames. The easel being at a good, convenient height and traveling over a space that is occupied by a four-foot automatic wash box and a two and one-half-foot hypo tray, actually takes up no floor space of its own whatever. I have used this arrangement for a long time and have never seen anything described that I thought would prove more convenient and practical.

At the same time, this description will hardly interest the man who is content with an occasional enlargement secured by pressing into service the kitchen table and a soap box for an easel; but it should prove a boon to the worker with limited space at his disposal, where every square foot counts,



SHOWING THE EASEL CONSTRUCTION
WITH WEDGE TO ADJUST

particularly if he has become disgusted with the swinging of an easel hung from an overhead track or an easel requiring a cumbersome floor stand or a long track mounted on a support from below.

I might mention in connection with the above, and also my article on enlarging in the last issue, that I use an electric light of one hundred candle-power for my enlarging. Using this light with a five-step rheostat, and in connection with the stops in the lens I can vary the exposure from ten seconds to five minutes with the same negative and paper. This power is a most useful one in controlling the amount of contrast secured in prints from negatives varying greatly in their quality. A thin, flat negative can be made to give surprisingly good prints by cutting down the light, while a hard, dense one can be favored by working in the opposite way.

A Letter to the Editor

San Francisco, May 6, 1907.

To the Editor,

CAMERA CRAFT, San Francisco.

Dear Sir: Considering the sacred trust which you, as the editor of the leading photographic magazine of America, hold for all serious workers with the camera, I was, I might almost say, shocked at the spirit of levity in which you commented recently upon the contents of some of your exchanges. It is, therefore, with a desire to point a moral lesson that I draw your attention to the following advertisement which appeared in "Focus," an English photographic magazine, of April 17, 1907:

EXCHANGE, Revolver, Smith & Wesson self-extracting, 5-chamber, in leather case. Also Hypodermic Syringe, in case, for good $\frac{1}{2}$ -plate Camera Set complete. Gibbs, 2 Chargeable Street, Canning Town.

Here, in an obscure corner of a paper edited and published for the benefit of the gentle craft of picture making, lies hidden the key-note to a life history. How little we know of the tragedies and trials, temptations and final victories over fallen human nature of those our immediate neighbors in the enlightened and highly cultured community of San Francisco that ever marches in the vanguard of civilization; and how much less do we know of the similar struggles and triumphant emancipations achieved by the few elect in the effete and benighted countries of the older world. And again, let us here observe the beneficent power, the sanctifying influence exerted by that most potent force in the uplifting of mankind—our beloved photography. Here (as we have before remarked on two distinct occasions), here was a man (we presume it was a man, for what girl would think of calling herself "Gibbs"?) who, brought to the depths of despair and hypochondria by his enslavement to the noxious drug, has contemplated ending all his earthly woes and has purchased a Smith & Wesson self-extracting, 5-chamber revolver in a leather case. But here let us give pause and consider how curiously the human mind may receive suggestions. The constant use of that hypodermic syringe has made a marked impression upon him; the more he struggles against it the more it haunts him, and he decides to end it all. But he can not get away from that hypodermic syringe. It has entered his very soul. Hypodermic syringe—hypodermic—hypoder—hypo—* * * Something has snapped—a flash—an idea has struck him, a glorious inspiration—he is saved! To the dogs, or the other fellow, with the syringe and the gun! He will get him a good $\frac{1}{2}$ -plate camera set complete and—be happy ever afterwards. And here once more let us ask the oft-repeated question, Is Photography an Art? The fiends forbid! To the man who does "Kodak developing and printing for the amateur" it is a heaven-sent messenger to teach him to possess his soul in patience, or have a large vocabulary.

Seriously yours,

W. R. W.

A Photographer's Paradise

By WILLIAM S. RICE

Illustrations by the Author

California, with all her "thousand wonders," offers unlimited possibilities to the enthusiastic camera hunter to whom the "call of the wild" is irresistible.

The writer of this article and a friend who likewise had a weakness for taking photographs, decided to hie themselves away to the High Sierras, one Summer, where they knew Spring still lingered in the Alpine heights and canyons, and where Winter's snows held out against the warm embraces of the god of Summer.



COMING STORM ON ALPINE LAKELET

The journey was made by rail to Truckee and our camp site was in a spot near Deer Park station, which we reached by taking the narrow-gauge cars which run from Truckee to Lake Tahoe. Deer Park is just about three miles from Tahoe City, the terminus of the narrow-gauge road.

Here unlimited subjects for photographic representation presented themselves; the swift-flowing Truckee, guarded on all sides by somber pines and frowning granite palisades; the Alpine lakelets that nestle like gems in the higher Sierras, with snowy peaks reflected on their calm surfaces; cascades, plushy-green meadows with cattle grazing, rugged hillsides with bands of grazing sheep, and beautiful wild flowers, all contributed to our photographic collection; while scenes in camp were not

unfrequently photographed to cherish as souvenirs of the season's outing.

Our photographic paraphernalia consisted of a 5x7 camera, with a sufficient bellows attachment to allow the depicting of such subjects as birds' nests and flowers in their native haunts. A tripod, of course, was an essential, and a ray filter, too, for the preservation of clouds in mountain-top views showing considerable sky spaces. Color-sensitive plates were preferred for the studies of plant forms, and for use with the ray filter in photographing cloudy skies. A smaller snap-shot instrument, carrying films, was used for subjects requiring quick action, as flocks of sheep grazing on the hillside or passing down a dusty road. For subjects as these the



CREST OF THE HIGH SIERRAS

large, plate, focussing camera was not only an incumbrance but entirely too slow to be of any service to us.

There is a comfortable inn about a mile, or two, up the canyon from the station, where one may stop if he has the price; but don't do it—take a camp outfit along and “rough it” as we did. Get right next to Nature. There are lots of beautiful camp sites in the vicinity, and firewood to last a life time. If you tire of the sport of camera gunning you can take chances with rod and line for the speckled beauties that “lie in siesta cool” in the amber depths of Bear or Squaw Creeks.

This is a country where you will find subjects ready made for the snapping, and things mixed up in such delightful profusion that if you do not fix a limit, you will expose all your plates, or films, and have none left by the time half your outing is gone.

Bear Creek, which enters the Truckee just a few hundred feet below

the Deer Park station, has its source off to the west, about two or three miles, among a chain of craggy peaks covered with eternal snow. The journey there is easily made in a few hours by following a plainly-marked trail.

After leaving the inn, to the left a trail gradually ascends the mountain side, crosses a side canyon, ascends another mountain, and soon brings one to a cluster of five alpine lakelets fed by the snows from the peaks above.

Nestling there, fringed by rugged and wind-buffed pines and somber firs, and with dripping snow-banks down to their very brink, and with the snow-capped peaks mirrored in their tranquil waters, these sheets of sapphire waters are truly gems of the Sierras.

So pure is the atmosphere, and so brilliant the sunlight at these altitudes that very short exposures are necessary in order to secure good effects. One-fifth of a second, using U. S. 32-stop with the screen, and one-twenty-fifth of a second without it, produced very good results and few failures for us.

The great variety of trees in this vicinity offer rare opportunities to the camerist who is botanically inclined. Foremost of all, are the giant yellow pines (*pinus ponderosa*), the tamarack, silver fir, grand silver fir, larch, juniper, quaking aspen, mountain pine, besides alders and willows.

Then there are the wild flowers, too, that one may photograph right in their native haunts and amid suitable environments. False hellebore, which rears its erect spike of white blossoms from amid a mass of tropical-looking foliage, makes a pretty picture there in the woodland glade, relieved against the gloom of the over-arching branches of fir and tamarack.

The wild sunflower, a bold, but strongly decorative plant, and a variety peculiar to these mountains, offers possibilities for decorative work along the lines of flower photography. These you will find out on exposed, rocky slopes where they get the full benefit of the sunshine.

In the higher regions, especially where there is still moisture among the open, grassy slopes, you will find the mariposa tulips sunning themselves, airily and daintily, upon their slender wire-like stems. The delicate petals are cream-colored, with a triangular blotch of lilac and a hairy spot of yellow near the base, forming a cup wherein insect guests may frequently be found regaling themselves upon the nectar. We found some varieties of these tulips, or lilies, as they are frequently called, colored in claret, magenta, purple and yellow, variously blotched with crimson or deep purple.

You will find plenty of excitement scrambling over slippery rocks, slipping through the brush and becoming mired in boggy places where you must go if you want to secure some of the shy, woodsy blossoms that hide coyly in these solitary places, "far from the maddening crowd." Focussing at a low angle, and the wind, are two very trying factors in this branch of photography, but patience and perseverance will overcome lots of difficulties. White flowers, or light-colored ones, undoubtedly make

the prettiest photographs; but if you can secure a light background, say a granite rock, even dark-colored ones are not uninteresting. The snow plant, that rare aristocrat of the High Sierras that every tourist, when he discovers it for the first time, pounces upon it and uproots it only to cast it aside before reaching camp, or else sticks it around camp ingloriously in a discarded tin can. How far better to photograph it in its native haunts and carry back Nature's impression than to tear it rudely from the bosom of the dark, leaf mould in yonder fir grove, and carry it back to camp, bruised, wilted and despirited!



STORM CLOUDS FROM THE RIDGE

One of the most cheerful flowers you will find abloom on rocky ledges, up—way up—where melting snow banks still moisten the ground, is the Alpine Phlox, a dainty, star-shaped blossom in white and lavender. These, with their natural environments of rocks, will furnish innumerable studies of a highly decorative character.

Now, a word as to camp supplies and necessities:

A tent is a convenience but not an absolute necessity, but plenty of blankets are, as the nights are extremely cool. An ordinary khaki suit of clothing and good, stout shoes, with hob nails to prevent slipping while climbing the trails, are essentials.

Canned meats and vegetables are most convenient to take along for the stay in the mountains. Fresh milk and butter can be bought at a dairy, by tramping three miles for it, but it is worth the exertion. One

may purchase a variety of canned goods in Truckee at quite reasonable rates. If one is handy with the rod a mess of speckled mountain trout will be an occasional dainty on the camp bill of fare; but it is not always safe to depend too much on this particular diet, as the fish in the Truckee, as elsewhere in California, are worldly wise and quite "on to their jobs."

A pair of smoked glasses are very useful to have when climbing the snowy peaks. The intensely brilliant light reflected from the snow banks and light granite rocks is very trying to the eyes, especially to any one who has been accustomed to spending much of his time indoors.

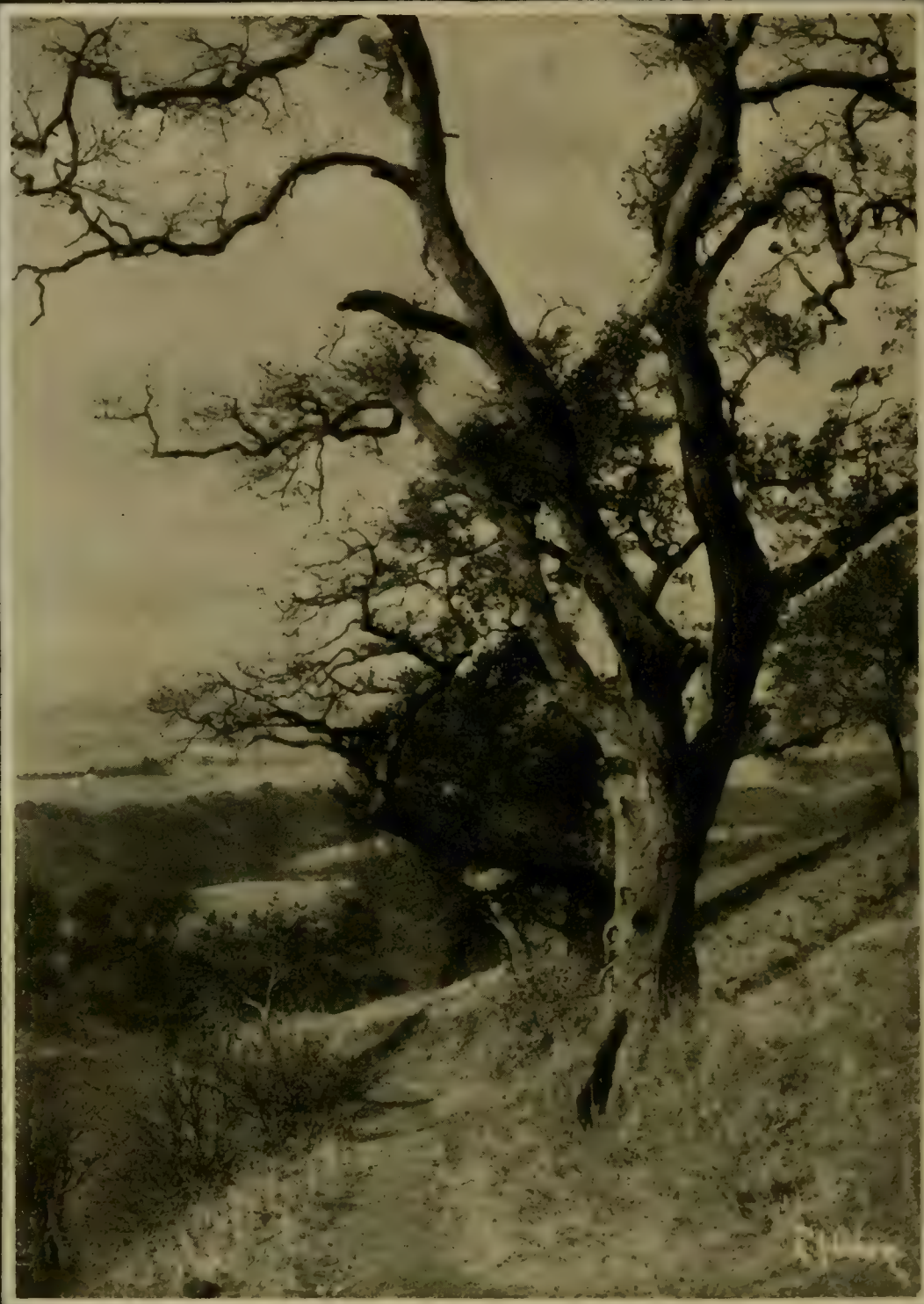
In your outing in this vicinity do not fail to take two trips: one to the summit of Squaw Peak, which is not very difficult of access and

which commands a grand panoramic view of snowy ridges, alpine lakelets and of that exquisite amethystine gem of the Sierras—Lake Tahoe, in her setting of pearly ranges and emerald forests; the other trip is the steamboat ride around the lake itself. From a photographic standpoint this lake did not appeal to me, as it is too big and has too magnificent distances to catch with an ordinary camera, unless it be a telephoto; but certain portions of it, as Emerald Bay, fallen, afford interesting subjects and can be "snapped" from the deck of the steamer if one so wishes. A panoramic camera would be very good for views of the lake, and should I go there again, I should be sure to carry mine along with me.



MOUNTAIN LAKE NEAR TAHOE

There are never any dull moments while in this enchanting region where Nature is so lavish in her wealth of scenery. The out-door life does me a world of good, and the appetites that one acquires is astonishing. Physical feats, too, are accomplished that would be quite unheard of in the lowlands. So that what one gains, aside from a wealth of photographic subjects, alone would amply compensate for a trip to the banks of the Truckee in the High Sierras.



DOWN AN OLD FOOTHILL ROAD
By EDGAR A. COHEN

Some Things About Developing Papers

By EDGAR A. COHEN

With some pictures by the Author

When I set up my camera against a picture, before making the exposure, I usually figure out all the stages of timing, developing the plate, and the kind of paper on which I expect to print it. Not that it requires any special mental effort, for I do it intuitively.

It is my aim to make negatives that will print without dodging, and of such evenness of printing quality as to admit the use of the same developer on all the grades of developing paper for which I intend them. The attaining of this result is in the proper development of the negatives, and is arrived at by the use of widely different solutions for various classes of subjects and duration of exposure.

It has enabled me, when printing, to pour into a tray a certain quantity of developer, and without changing any of its component parts, to get the best results from every one of a pile of negatives, each on the particular grade of paper for which it was made.

In a recent number of "Camera Craft" a well known photographic writer, in defending the tank system, remarked: "Who wants to get all his negatives of the same quality?" He did not mean having them so would be objectionable, but rather that their being different would not prevent fine prints being made from them by the use of extra trouble.

When Special Velox first came out it was a great boon to those wanting good results with the least work. I freely admit being one of that class; taking to it like a duck to water, and whenever I could, made my negatives to suit it. While it is still my first choice as an all-around paper, some of my negatives made during the past year have been more suited to other papers, owing to what I believe are changes that the manufacturers have made in the emulsion from time to time in their efforts to improve its quality. Three years ago Special Velox combined a brilliancy of high lights with a softness in half tones and shadows, that was excellent. Each change in the paper I followed in my negative making with the requisite change in working. I believe every manufacturer tries to attain perfection in his output, but he may not realize the trouble he causes his customers when he changes its quality. As I then made my negatives they gave the best results on Special Velox; but when the quality of Velox changed, I had either to slightly alter the composition of my developer or seek another paper on which to print my former negatives. Now utility makes it preferable to use your standard developer and pick out different papers to suit your negatives. Further along I will tell how to make the paper suit the negatives by changing the developer. While I am now using little other than Royal Velox, I believe the Special Velox emulsions are the same as the earlier ones which I found so satisfactory, and I trust the makers will maintain this quality, now that they have overcome the defects responsible for the changes. For marines and landscapes my preferences in contact developing papers are as follows: For flat subjects, Regular Carbon Velox; slightly

more contrasty subjects, Special Velox, and for very contrasty subjects, Special Portrait Velox and Rough Green Artura.

When I want plenty of detail I use matt surface papers. For sketchy effects I use rough surface emulsions. Green Artura gives a very fine effect when grass and trees are to be portrayed in their natural colors. A contrasty negative is necessary, as ordinary ones may give a green sky, which is not pretty. It takes about one hundred times longer to print than does Velox, so the use of daylight is essential. To save time on a straight printing negative, I often expose it to direct sunlight for a quarter to half a

second. It has some tendency to curl, and for that reason should be washed by hand, but if you are willing to give it the care it will return you prints not obtainable on any other paper, on account of its color. The finished prints are more brilliant by daylight than by gas or electricity.

Royal Velox is the new paper everybody is asking about. I find that after my picture customers have looked at buff prints, the old black and white kind look cold, and are neglected. This tendency has made a great demand for buff papers and the Velox makers have put a superior article on the market. Royal Velox is a paper of detail, while Argo Buff is a paper of effect. Royal, like other Velox, comes in two grades, Regular



VALLEY OF SILVA CREEK

By EDGAR A. COHEN

for soft negatives, and Special for contrasty ones. Its color is canary, its surface semi-matt, and it is coated on fine, heavy stock. It is remarkably free from defects; the only trouble I have experienced in using some five gross being a half dozen sheets that blistered in the washing. I consider it a very valuable paper, and the best of the Velox output. If ordinary care is used in spotting negatives, no trace of the work appears on the Royal prints.

Buff Argo is made only in one grade as to speed and surface, being rough. I found it has great latitude, and that is especially adapted to subjects with large masses of lights and shadows, also to ruined buildings, such as are shown in some of the San Francisco fire pictures and others

like old Spanish Missions. Development must be carried well along on negatives destined for this paper, else the high lights will be muddy.

A year ago I took a trip and gathered in some fifteen new subjects. On my return I made my negatives to print on Special Velox and felt satisfied that I had some fine pictures in store, this turning out to be the case. I had the tail end of a gross of Special Carbon Velox, on which I printed them satisfactorily. I had some orders for prints from these and also some of my older negatives. Opening a fresh gross of paper, I started printing, but the results were unsatisfactory. There was more high light and shadow effect than I had expected, with a corresponding lack of half tones. My first impression was that I had made a mistake in compounding



A RAINY DAY IN SOUTHERN MONTEREY

By EDGAR A. COHEN

my developer, so I carefully prepared some more. The results were the same. I was forced to the conclusion that the makers had changed the quality of the paper.

Several days before this, a country photographer told me he had ordered some M.-Q. developer from his dealer. He received instead N. A. developer, with the explanation that M.-Q. was no longer being put on the market, but that N. A. was recommended in its stead. He further stated that he did not like the N. A. prints. "Well," I replied, "for some time past the makers have been stating that best results can be had only with their developers, and they are expecting you to use their chemicals." His reply was that he intended trying a formula that I gave him a year ago. This conversation

recurring to my mind, I went and bought some N. A. developer, and gave it a thorough test. I had before me at least a dozen negatives, on which I had orders for ten or more prints each. I developed them with N. A., carefully following maker's directions. The resultant prints, however, seemed irregular, the first one for any particular batch of developer being soft, and following ones growing slightly harder, until the results were too contrasty for my liking. This was due to my trying to avoid the necessity of using a new portion of the solution as frequently as I should have done. Each print was numbered in pencil on the back, and for that reason I had no difficulty in confirming my observations when the dry and finished prints were examined. I do not desire to condemn the N. A. developer, for it has its good points. It does not oxidize easily. The yellow danger signal in the print, remaining till it is thoroughly fixed, is of great value, as we all know how much danger there is of not eliminating the surplus silver and hypo from developing papers. Furthermore, any developer may be made to give the same results, or rather made into a "Non-Abrasion Developer," by adding to each fluid ounce, five to ten grains of iodide of potassium crystals.



POINT CARMEL THROUGH THE MIST
By EDGAR A. COHEN

My regular developer, which gives proper tones, is something like the following:

No. 1.

- Water 5 ounces
- Metol 7 grains
- Hydrokinone 30 grains
- Sodium sulphite (crystals)..... 1/2 ounce

No. 2.

- Water 5 ounces
 - Sodium carbonate (desiccated)..... 200 grains
(or 400 grains of Crystals.)
 - Potassium bromide (10 per cent solution)..... 12 drops
- Use equal parts of No. 1 and No. 2, and if desired add more bromide.

To counteract the change in the paper, instead of using equal quantities of No. 1, which is the developing agent, and of No. 2, which is the accelerator, I took four parts of No. 1 and two parts of No. 2. This gave just the desired softness in the prints.

I do not see how any photographer can be satisfied with a single solution developer. It limits his results too much. Any recognized formula can be varied in the same way as the one above. Remember that the more No. 1 you use, the more detail and the weaker the high lights; and in the inverse ratio, if the excess used is of No. 2. Suppose, for example, you have made a mistake and slightly overdeveloped a negative of a slightly contrasty subject.



CLOISTERS OF SAN JUAN CAPISTRANO

By EDGAR A. COHEN

You can probably print it to your satisfaction on Special Portrait paper. If you have not that paper, and have Special Carbon Velox, use three parts of No. 1 and one part of No. 2. If the only paper you have is Carbon Velox, then use eight parts No. 1, and one part No. 2. Not knowing your negative, the proportions given may not suit it, but the theory is certainly correct. You can easily satisfy yourself by trying it and then altering the proportions to suit. If your negative is too flat, use Carbon Velox, and if desired, the necessary excess of No. 2 to brighten up the resultant print.

I find it poor economy to try and use a fixing bath beyond a point of absolute safety. Hypo is not a costly chemical, and if the compounding of the bath is simplified in the proper way, there is little temptation to use it

too long. The right way is to keep on hand a stock solution of "Hardener," as it may be called, composed as follows:

Water	20 ounces
Sulphite of soda (crystals).....	4 ounces
Acetic acid No. 8.....	12 ounces
Alum, powdered	4 ounces

One ounce of this should be added to every ten ounces of the ordinary hypo fixing bath, which is of a strength of one ounce of hypo to four of water. A pound of hypo, sixty-four ounces of water and eight ounces of the above hardening solution are easily put together, and gives a fixing bath that can be trusted as long as it retains a distinctive odor of the acid. The evaporation of the acid is what weakens the bath, so add a little more occasionally. The prints should be fixed for at least fifteen minutes, and not allowed to pack together during the process. If one wishes to be sure that the washing which follows is complete, he can easily determine that point by making use of the permanganate test. This will necessitate a solution as follows:

Potassium permanganate	8 grains
Soda (caustic)	7 grains
Water (distilled)	8 ounces

When the prints are thought to be thoroughly washed, allow the drippings from the corner of one of them to fall into a glass of water containing four or five drops of the above solution. If any hypo is still present in the print, it will show by the drippings, causing the violet color of the solution in the glass to change to a faint greenish tint; and of course further washing will be necessary. The test can be repeated a little later. A full hour in running water is none too long washing for prints, as the hypo is less easily removed from the fibers of the paper than from an emulsion coated upon glass or celluloid.

The Imagination in Work

So long as the uses of the imagination in creative work are so little comprehended by the great majority of men, it can hardly be expected that its practical uses will be understood. There is a general, if somewhat vague, recognition of the force and beauty of its achievements as illustrated in the work of Dante, Raphael, Rembrandt, and Wagner; but very few people perceive the play of this supreme architectural and structural faculty in the great works of engineering, or in the sublime guesses at truth which science sometimes makes when she comes to the end of the solid road of fact along which she has traveled. The scientist, the engineer, the constructive man in every department of work, uses the imagination quite as much as the artist; for the imagination is not a decorator and embellisher, as so many appear to think; it is a creator and instructor. Wherever work is done in great lines or life is lived in fields of constant fertility, the imagination is always the central and shaping power.—Hamilton Wright Mabie.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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As It Looks from a Distance

The frequency with which Dr. Power finds occasion to quote in his "Digest" from the pages of our British contemporary, "Photography," is a slight indication of that magazine's high worth and consequent popularity in its own country. It is therefore with some little pride, tempered, of course, by our desire to avoid the mental attitude that is responsible for the too-common practice of publishing letters from subscribers who "cannot get along without the magazine," that we reprint the following editorial comment from the pages of "Photography," of London. Speaking of the "Photo Beacon," Mr. Todd's retirement from the field of photographic journalism and the resultant "American Photographer," the editor continues: "It remains to be seen whether the new magazine will achieve a like distinction, or subside into the mildly effete condition which seems to characterize most of the American magazines, of which the ancient and respectable '——' may be taken as a type. Putting on one side 'Camera Work,' of course, which is in a position of its own, 'Camera Craft,' of San Francisco, is the most notable American photographic magazine; the others only arouse in us envious feelings, as we contemplate the apparent ease with which the great American public is satisfied. No wonder the American editors combine with their editorial functions those of the advertisement canvasser and publisher."

Ten-Dollar Gold Pieces for Copper Cents

The United States publishers no doubt send a thousand copies of their magazines into Canada for every copy sent by a Canadian publisher into this country. The new postal convention by which Canada imposes the higher rate on both countries means that the United States subscriber to the Canadian magazine pays the Canadian government, through the Canadian publisher, two to six cents, while his Canadian brother is paying Uncle Sam from twenty to sixty dollars in the same indirect way. In other words, our Canadian friends are handing us ten-dollar gold pieces in exchange for copper cents. This seems to us quite an expensive method of protecting the Canadian publisher. We sincerely hope that our Canadian friends will at least have the satisfaction of finding their gold pieces accomplish the desired results—but we have our doubts.

Our Cover for June

The excellent portrayal of roses that graced our cover design for June was a reproduction of one of the many excellent flower studies by William S. Rice, of Stockton, California. Through an oversight, we failed to give Mr. Rice credit, and hereby tender our apologies. This gentleman's work, both with camera and pen, has graced our pages quite frequently, and we have on hand some excellent samples of his skill in another line—that of designing, which we will shortly be using as tail-pieces. Mr. Rice, as one of our most valued collaborators in the production of "Camera Craft," has our keenest appreciation of his ever-welcome assistance, and for that reason we regret the more that full justice was withheld.

C. W. Parker Passes Away

C. W. Parker, of the old and well-known firm of C. W. Parker & Company, photographic supplies, Seattle, Washington, passed away during the early part of last month. He was a prominent figure in photographic circles in the Northwest and his estimable character endeared him to a large host of friends who will feel deeply the loss which they have sustained.

June, 1900, Issue Wanted

We have recently filled out several nearly complete files of "Camera Craft" for old subscribers, and can do so for two others if we can secure two copies of the second issue—that for June, 1900. If any of our readers have copies of that issue that they can spare, without breaking sets of their own, we would be pleased to have them send them to us. We will gladly pay fifty cents for copies of that issue, in good condition, or we will extend the sender's subscription for one year.

Will You Kindly Advise?

We are seriously contemplating the inauguration of a series of competitions, with a different subject each month, and would like to have the opinion and advice of our readers upon the advisability of so doing. Our idea is not to offer a medal, cash prize or "photographic goods to the value of," but to make awards in the form of original photographs by well-known workers. In other words, if the competition for a particular month involves a figure study, we would offer some two or three pictures of that class, the work of leading photographers that had earned recognition in some exhibition or salon. Understand, however, we will have to hear from a large number of our readers, before being convinced that the space devoted to such competitions will not be misused in the eyes of too large a proportion of our readers.

Aim High

When one comes up to the mark he has set for himself, it is a safe conclusion that the standard was too low.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Blisters in Bromide Prints

Since the introduction of toning bromide prints with sodium sulphide, blisters have become so common that it is a serious matter, as whole batches of prints may be spoiled at any moment. The blisters occur in such an erratic way that the ordinary photographer is unable to trace their cause to its source, or sources, for there are probably many. Some brands of paper seem more liable to this defect than others, yet different batches of the same maker's paper vary, and some will blister and some will not. It has been suggested that grease on the paper before coating with the sensitive emulsion is a probable cause. But this would produce large blisters, and the trouble is usually that the prints are covered with small blisters from one-eighth to a quarter of an inch in diameter, and the large ones are exceptional.

Before the days of sulphide toning, blisters occurred, but the defect was not a common one. Several remedies were suggested, such as immersion in a solution of common salt without washing from the fixing bath; or a bath of methylated spirit in place of salt and water; but even then the cures often failed, and blisters frequently appeared. Prints on thin paper seemed more liable to blisters than prints of the same make on thick paper, yet post-card prints often show blisters badly, though they generally disappear on drying. The local water supply no doubt has some effect in causing blisters; where the water is "hard," in a limestone or chalk district, blisters are liable to appear, while in some of our large towns, such as Glasgow, Liverpool, Manchester and Birmingham, the water is "soft," being drawn from lakes (natural or artificial) in mountainous districts, being practically rain water in which there but small quantities of lime and other minerals.

The question then arises, How can photographers who are compelled to use "soft" water prevent their prints from blistering? The answer is, by using a fixing bath containing alum. Many object to such a bath, arguing that it endangers the permanence of the print. If it is prepared in the haphazard way in which many men work, it may, and probably will, affect the stability of the print. If the fixing bath is prepared by throwing a handful of alum into a solution of hyposulphite, the prints fixed in it will turn yellow, sooner or later. But if the bath is properly prepared there seems no reason to fear any deterioration. Many manufacturers recommend an acid fixing bath containing alum, and for some of the newer brands of bromide paper, in which the paper support is thin, alum is an absolute necessity; and for many of the "Gas-light" papers on the market, an acid fixing must be used, if yellow prints are to be avoided.

A good formula, one well tested by long use, is:

Water	64 ounces
Hyposulphite	16 ounces
Sodium sulphite	1 ounce

When the crystals are dissolved, add one and one-half ounces of glacial acetic acid and finally one ounce of potash alum, dissolved in five ounces of water. A large stoneware jug can be used for mixing, and hot water hastens the solution of the chemicals; it should, of course, be allowed to cool before use. If properly mixed, the solution should be only very slightly cloudy. The surface of prints fixed in this bath should feel "leathery" to the touch in about thirty seconds after immersion, and the bath should not be used too long without renewal. If the surface of the print is soft after a minute's fixing, a fresh bath should be substituted at once. It is best to make up a gallon or more at a time, so that a stock of unused fresh solution is always

ready. If found more convenient, it may be mixed double the strength and diluted for use as required. After washing, prints may be spread out to dry, face downward, so avoiding curling. If the prints are to be toned with sulphide they must be dried before being toned, or they may blister; and any rough handling or buckling of the wet prints must be guarded against, as this is a frequent cause of blisters.

After the prints have been bleached by the photographer's favorite formula, they must be darkened by the application of the sulphide, which must not be too strong—half an ounce of saturated solution of sulphide should be diluted with forty ounces of water—and the prints should not remain in it any longer than is necessary to convert the iodide or other silver compound into sulphide. Only a few prints should be darkened at a time—each one can be placed face down and pushed under the solution. When about a dozen prints are immersed they may be turned face up, one by one, and in two or three minutes after the images are darkened as far as they will go, they must be removed, one by one, and placed in a fairly-strong solution of alum, without previous washing. They may remain in the alum solution until all are toned, the dish containing the prints is put under a stream of water and the prints turned over and over, so that the alum solution is gradually washed away; a very short washing in water is then sufficient.

The method recommended above is the result of years of practical experience in an establishment where bromide prints form ninety-nine per cent of the output. There are probably many causes of blisters, but if the above method be adopted, not one print in a thousand will blister, if ordinary care is used in carrying out the process. Special stress must be laid on three points—first, an acid fixing bath containing alum; second, drying prints before toning; and, third, removal to an alum bath from the sulphide solution, without washing. Sometimes a white deposit will appear on the surface of prints when dry, but a slight rubbing with a tuft of cotton wool, moistened with methylated spirit, will remove it.—“The British Journal of Photography.”

Stereograms Without Stereoscopes the Portrait of the Future

Such is the caption of an article by M. Goderius in Bulletin Association Belge de Photographie, in which he describes a photograph of a skull, consisting of a single framed picture that, viewed without any instrument, had full stereoscopic relief, giving a complete illusion of a solid skull standing free in space. The method of producing the photograph, which was exhibited at a meeting of the Belgian Photographic Association, was not explained. M. Goderius, however, examined the specimen and found it to consist of an image showing a double outline as though the separate negatives of a stereogram had been printed one over the other. Moreover, on examination with a magnifier, it showed vertical lines placed one-eighth millimeter (one-two-hundredth of an inch) apart. Lastly, the picture was covered by a screen consisting of spaces alternately dark and light. The explanation, offered by the writer, of the stereoscopic effect is that the dark spaces are so arranged relatively to the elements of the image that the right and left eyes are blocked from seeing other than the elements proper to each eye, and that though these elements, by reason of the superimposition, be necessarily imperfect, yet, owing to the minute division of the missing parts, their loss is not perceived. M. Goderius gives details as to how (he believes) these photographs could be produced and for which he prognosticates a great future.

Postcards

The picture postcard business is stupendous—it is growing, and will continue to grow. The view postcard is not a fad or passing fancy; it has come to stay, and is as permanent as the postage stamp that carries it through the mails. The postal authorities quickly recognized the immense increase in revenue to be derived—hence every nation throughout the world is encouraging the use of picture postcards, and have granted most liberal privileges. The American Photocolor-type Company, Chicago, makes the most beautiful cards ever produced, in form complying with latest postal regulations. See its advertisement in this issue.

Our Book Shelf

By FAYETTE J. CLUTE

"Art Principles in Portrait Photography"

We take special pleasure in calling the attention of our readers to a new book with the above title, the work of Otto Walter Beck. It is so rarely that we are able to chronicle the advent of a thoroughly practical exposition of the direct application of art principles to photographic productions, that the gratification is doubly great. Writers have told us where our work was weak, where it was at fault, where it has failed. They have told us where it was good, where it approached the ideal and where real art has been incorporated. To Mr. Beck has been left the task of giving us the why and the how; the reason for a departure from the documental into the creative, with an explanation of the methods that can enable the desired results to be achieved. While the teachings of the book are radical and new, they are serious and convincing. While every manipulative detail is explained most clearly, the instructions are not dogmatic; their successful application is a detail not put forth to justify the results, but to show the application of the principles that so ably justify themselves. The book is a very handsome one, lavishly illustrated with a wealth of reproductions from actual photographs, showing clearly every application described. Issued by The Baker & Taylor Publishing Company, 33-37 East Seventeenth Street, New York. Hirsch & Kaiser of this city have it in stock; price \$3.00.

"The Book of Photography"

The full title is: "The Book of Photography, Practical, Theoretical and Applied." It is edited by Paul N. Hasluck, and as it is a handsome, cloth-bound book of seven hundred and forty-four pages, with a thousand illustrations and forty-eight full-page plates, it is practically an encyclopedia. It has forty-one chapters, and the subjects are treated from the point of view of both

the professional and the amateur. It is edited by a man of wide experience, and the special articles are from the pens of experts. This work is something more than a book of hints; it is a practical treatise, written for the use of men who make something more of photography than "I press the button, you do the rest" sport. Yet it deals with the elements of photography, as well as its highest development. In both cases its language is clear, free from unnecessary technicalities, and authoritative. The practice is that most approved; the theory is set forth with examples that illustrate its working out. A glossary of terms is provided, and also a suitable index. An idea of the comprehensiveness of the work may be gathered from its table of contents. This includes cameras and accessories, plates and films, exposures, development, intensification, reduction, printing, development, processes of printing, toning with gold and platinum, dark rooms, mounting and framing, pinhole photography, enlarging, copying, lantern slides, working up prints and enlargements in monochrome, coloring lenses, chemical action of light, chemistry of development and toning, theory of the latent image, plate speeds, photography in colors, orthochromatic photography, carbon compounds, portraiture, landscapes, photomicrography, architectural and interior photography, spectro-photography, monumental work, astronomical, stereoscopic, natural history photography, telephotography, photo-ceramics, residues, photomechanical processes, radiography and many other topics subsidiary to the above subjects. The price is three dollars, net. Published by Cassell & Company, 43-45 East Nineteenth Street, New York.

"The Higher Photography"

The above is the title of a masterful article in the July issue of "Appleton's Magazine," from the pen of Rupert Hughes. The production shows that the author is in sympathy with his subject, that he has the cour-

age of his convictions, and the skill to present them in a logical and conclusive manner. The article is one that will interest, even inspire, the photographic artist whose aims are above that of the press-the-button class, and no small portion of the charm which the story carries is due to the reproductions of a number of interesting examples of the camera work of Alice Boughton, one of the most sincere exponents of artistic photography in this country. Quoting from the article:

"And the least that can be said of photography is that it has added one more weapon of defense against the hideous nullification that makes a vanity of beauty and makes of grace a mist upon a window.

"A work of art is the portrait of a moment. Why make caste a difference between beautiful and beautiful? What if one is chronicled by a lens and a few chemicals, and the others are chronicled by a few chemicals and a brush, or a chisel, a pen, a pencil, an etcher's needle, or an architect's army of workers?

"The critic in Kipling's poem sneered, 'It is pretty, but is it art?' The man of common sense says bluntly, 'Whether it's art or not, it's pretty.'

"So I for one plague myself no more with fretting over the particular degree of sanctity we shall grant photography. Some photographs are better than others; and some are very good indeed. That is enough."

"Bulletin of Photography"

Announcement is made that on August 6th will be begun the publication of the "Bulletin of Photography," a weekly magazine devoted to the interests of the professional photographer and a magazine giving good, sound and practical information; in fact, one from which the professional photographer can get information that will be a help. It will be sold for five cents a copy or \$1.75 per year. The publishers have secured some of the best writers in this country and abroad and the pages of the "Bulletin of Photography" will be absolutely clean and devoid of personalities. Events of the day and new discoveries will be announced and the busy professional will get his information in a nut shell.

The new magazine is independent of "The Camera," which Mr. Chambers has edited for the past eight years, and covers an en-

tirely different field. "The Camera" will look after the amateur photographer as of yore, but the "Bulletin of Photography" is for the professional.

As the time is ripe for the publication of a high-grade professional photographic magazine, it is intended to issue the first number in time for the convention of the Photographers' Association of America, at Dayton, Ohio, on August 6th.

An Art Critic's View

H. M. Spielmann, writing in the "Morning Leader," (London), recently said: "But when photography is content to be itself, and does not aim at aping, or, rather, impersonating, something else its votaries will receive the applause and gratitude of the world. So long as it depends, as it ever must, on an entirely scientific and mechanical basis, it cannot claim to be one of the Fine Arts. The model, which to the artist is a convenience, a servant, to the photographer is a master, if not a tyrant, to be cajoled and coaxed chemically to his needs. And even when most successful, a photographer can never get nearer to a painting than a monochrome drawing (*pace* Shaw). By that time the print has perhaps ceased to be photography, and it has not yet begun to be art."

International Photographic Exhibition

The International Photographic Exhibition, to be held at Dresden in 1909, is destined to achieve great success. Since His Majesty the King, Frederic August of Saxony, has been willing to become patron of the exhibition, and His Royal Highness, Prince John George, president of the honorary committee, a lively interest has been awakened in all circles. The beginning of September a comprehensive program in several languages will be issued. A large participation, especially from abroad, is certainly to be expected. The importance of the exhibition, which should exceed all previous undertakings of the same kind, is characterized by the fact that the photographic exhibitions already planned for 1909, at Munich and Florence, were postponed in consideration of the Dresden exhibition. All information to be obtained at the office of the exhibition, Hotel Stadt Berlin, 1 Neumarkt.

The Amateur and His Troubles

By FAYETTE J. CLUTE

Acid Proof Corks

A dealer, putting up an acid solution, is having trouble with the corks. We would suggest his trying a plan advocated by one of our German exchanges about a year ago: One-half ounce of gelatine is swelled in some water and then dissolved in enough warm water to make sixteen ounces; to which six drachms of glycerine are added. This must be kept at a temperature of one hundred and thirty-five degrees Fahrenheit. The corks are soaked in this for some time, allowed to dry and then placed in a bath consisting of five ounces of vaseline and sixteen ounces of paraffin. This last must also be kept at a temperature sufficient to maintain the paraffin in a melted state. Another plan is to add a small amount of ammonium bichromate to the first solution and then expose the corks to sunlight for some time, thus rendering the gelatine coating insoluble and making the second bath unnecessary.

Ozobrome Lantern Slides

We recently had the pleasure of seeing some very pleasing lantern slides made by one of our subscribers using some of the Italian green ozobrome tissue which he had secured through us. Acting upon Dr. Powers' advice, that an untuned but fixed print on Solio paper would answer the same purpose as a bromide print, and also availing himself of a note in the "Photographic News," he proceeded to experiment as follows: Solio prints were made from the negatives and these were fixed without toning. The ozobrome plaster was soaked in the solution for one minute and then squeegeed into contact with the prints which had been previously soaked in water. They were kept under slight pressure between sheets of damp blotting paper for fully an hour. They are then immersed in cold water and a little later the two are separated and the plaster squeegeed onto a plain cover glass and the two placed between dry blotters under slight pressure for nearly

half an hour. The next operation consists in immersing the cover glass and its adhering plaster in a tray of water made slightly warm, and when the backing paper starts to come away, it is stripped off and development of the slide proceeded with without further application of warm water. There will be no image left on the backing paper as is the case in the carbon process, the ozotype plaster being much thicker and the penetrative power of the image forming silver less than that of the light used in printing carbon tissue. The soluble plaster is somewhat slow in coming away after the removal of the backing paper, but the process should not be hastened. The resultant slides were most excellent and the success of our subscriber should encourage others to employ the same process in the light of his experiments.

Unmounting "Dry Mounted" Prints

A couple of pictures reproduced in this issue were mounted, combination style, on series of cover papers that, while quite pleasing to the eye, would have reproduced simply as bands of practically the same shades of a dirty gray. It was, therefore, necessary to unmount them, and from past experience, where we had not investigated the form of mountant, we knew they could be soaked in water for several days without the desired result. We therefore availed ourselves of a suggestion in a recent issue of the "Photographic Monthly" and proceeded to melt the prints from their mounts. A near-by professional uses a piece of iron about a foot square and an inch thick as a pressure weight and this was borrowed. Over a gas flame it was heated to about two hundred and fifty degrees Fahrenheit, and the mount placed thereon. By pressing upon one corner of the print with a cloth pad, it was made to slip as the mounting tissue softened, and then that portion raised and the process continued until

the whole print came loose from the mount. It should be understood that this amount of heat would not be allowable if applied directly to the face of the prints, particularly prints bearing a gelatine emulsion. Carbon and gum prints should be given only about one hundred and fifty degrees Fahrenheit in the mounting press, while with papers such as platinum and plain salted silver, two hundred degrees can be used. Not only this but the employment of too great heat and too short a dwell, is liable to result in adhesion only of the print to the mounting sheet without adhesion of the latter to the mount. This last we also learn from the same writer in the magazine mentioned.

Passe-Partout Mounting

There should not be any difficulty in securing the same neat results as those secured by the professional framer if our Ohio correspondent will exercise due care and see that the heavy card that is used as a backing is exactly the same size and shape as the glass. The binding strips should be cut to the exact length required, or a trifle shorter, as they expand a little in being dampened, and then creased so that the fold corresponds with the amount that it is desired to have show on the front. The glass is then placed face up on a support which allows the edges to reach over and the strips, which have been previously wetted with a brush, placed with their front edge in position. This will complete that portion and leave the glass with the major portion of the width of the strip hanging over the edge all around. All that is then necessary is to turn the glass over, drop the picture and backing card into position, and attach the remaining edge of the binding strip, wetting them again if necessary.

The Adon Lens

An Oregon correspondent asks concerning the behavior of the Adon lens, but his queries are not exactly clear. Briefly, the lens used in combination with a good ordinary lens about doubles the focal length, but reduces the covering power to such an extent that the corners of the plate will not be covered. Used alone, it will give almost any degree of magnification and covering power. To find the equivalent focal length, double the camera extension and add four and one-half inches. You cannot expect the same

critical definition that an anastigmat will give, and as we noted in this department recently, the rapidity falls off very rapidly as magnification is secured.

Fixatif for Crayon Work

The same correspondent wishes a formula for the fixatif that is sprayed over crayon work, black-and-white drawings, and the like. The following is a good formula:

Pale yellow shellac.....	60 grains
Borax.	30 grains
Carbonate of soda.....	10 grains
Glycerine	30 minims
Water.	1 ounce

Boil, cool, and then add one ounce of alcohol. Add a little pumice powder to precipitate the lac wax. Shake well, allow to stand two or three days, and then filter.

Contrast in Ozobrome

One of our correspondents complains of a want of contrast in his ozobrome prints. No doubt his bromide prints are a little on the weak side, but even if this is the case, he can secure almost any desired amount of contrast by adding a ten per cent solution of ammonia to the sensitizing solution as advised by an English writer, the Reverend W. Dick, who says, writing in "Photography:" "A strong print may be made from a weak bromide print. In about six ounces of the working solution, not the strong solution as purchased, put ten, twenty, thirty, forty, fifty, or sixty minims of the ammonia solution, and the vigor of the ozobrome will increase with the increase of the ammonia. A flat ozobrome print may be made from a strong bromide print by proceeding as above, only using a ten per cent solution of chrome alum in place of the ten per cent solution of ammonia. Almost any degree of vigor flatness may be had by adopting the above directions."

Postcards

"The printed words on picture postcards—'This side for the address only'—has been inoperative since twelve o'clock on the night of February 28, 1907."—"Harper's Weekly." All postcards offered for sale that are not provided with space on the address side for messages or advertising, are out of date. The American Photocolortype Company, Chicago, makes the correct kind. See advertisement in this issue.

Notes and Comment

A New Developer

We were shown some negatives and prints recently, all developed with Letol developer, that proved most conclusively the wonderful capabilities of this new preparation. The tests were made by a local firm who contemplated using it in preference to making up their own developer and as they desired to know exactly what it would do, they instructed one of their operators to use a shutter of known accuracy and give exposures varying from one-fiftieth second to one and one-half second, on the same subject in rapid succession and develop the six plates at the same time in the same amount of Letol developer. The results were remarkable and prints from all six of the negatives were such that a commercial photographer would have had no difficulty in delivering the work to a customer, in fact, the variation was less than that between individual prints of his regular output which could hardly have shown the same wide variation from the correct exposure as his men are all experienced view operators. Letol is a one solution developer that requires to be diluted with three times its bulk of water for plates and for paper with an amount of water equal to its bulk. The twenty-five cent size bottle makes thirty-two ounces of developer. It is supplied in gallon bottles at \$2.50, making four gallons of plate developer and two for paper. The developer is being placed on the market by the Western Photo Supply Company, 559 East Twelfth Street, Oakland, California, and as soon as its merits become known it will no doubt enjoy a very large popularity.

An Intensifier that Intensifies

Intensification, the right kind of intensification, is a power in the hands of the photographer, second only to development. Reduction is somewhat risky as there is danger of carrying the matter too far, and detail once lost cannot be restored. In developing, we can assure ourselves that any

slight over-density can be removed, and for that reason feel confident that we must only take care to see that our negatives are on the dense side where we are in doubt; but this plan is not advisable. By forcing development, fog may be produced and the quality of the final result is problematical. With a good reliable intensifier at our command, all this is changed. One has simply to assure himself that he is securing all the detail required, and then if the desired density is not secured, the fault is easily remedied. Even the most careful workers will, working with a variety of subjects under varying conditions, produce negatives that are a trifle too thin. The worker may have a number of negatives that print very well on a contrasty developing paper, but which he desires to print on platinum or some paper that requires more density. Simplex intensifier is a solution that we can confidentially recommend. We have tried it ourselves and are more than pleased with the result. It is not a dangerous poison like those containing corrosive sublimate, which are so often published. It is not claimed for it that it will either intensify or reduce. It is not a dirty solution that simply intensifies by staining the film and making the printing much slower. It is a clean solution that is to be diluted with water before use, giving uniform results, no stain or discoloration other than a slight warmth that is confined to the image itself. It is not corrosive; keeps well and can always be depended upon to do its work. The results are permanent and we believe any of our readers who will secure a bottle and try it on some of their thin negatives, negatives from which they can not at present secure good prints, will thank us for calling their attention to so excellent an article. It can be secured from Hirsch & Kaiser of this city, direct from the Simplex Intensifier Company, Kansas City, Missouri, or from such dealers who may have secured a supply in the short time it has been upon the market.

A Background Catalogue

About the handsomest catalogue of backgrounds that it has been our pleasure to inspect, reached us recently from the Chicago Photo Scenic Company. It is a handsome book, elegantly printed on heavy Sepia book paper, showing almost a hundred striking examples of the background painters' art. So excellent are the designs throughout that one would be almost safe in ordering grounds from the book, blind-folded. The usual collection of obsolete designs that so often seem to be included in catalogues of this kind, simply because the original blocks are capable of further printing, are entirely absent. The firm also turn out blue-white, sepia-black and plain grounds, and special designs of local subjects. The example shown of this latter class of work being a realistic scene from our San Francisco fire, with the Call Building where our offices are now located, just bursting into flame. As our readers have no doubt gathered, this catalogue is rather an expensive one, and as it is intended for the dealer and professional worker almost exclusively, it will be advisable that applicants for a copy use their business stationery or enclose their business card. While the firm is desirous of having one of these catalogues in the hands of every professional in the land, they can hardly afford to send them out in response to inquiries from non-users of such goods. The profits in background painting would not permit. Address the Chicago Photo Scenic Company, 140 Dearborn Street, Chicago, Illinois.

Oliver Lippincott in New York

Mr. Lippincott, who was for so many years known as one of the leading photographers of Los Angeles and Coronado Beach, has been in New York the past few years, and we are advised is doing an excellent business at 20 John Street, that city, as a photographer of men. Quoting from one of his recent pieces of advertising, very neatly gotten up by the way, he says: "Being a photographer and student of all the latest improvements in methods of photography since 1886, I offer my services in portraying correct likenesses. Under my personal supervision, and assisted by the most skilled artists and operators, attention is

given to the most minute details, which results in an absolutely perfect finished product. You are invited to call and inspect samples of my productions. Sittings are by appointment only." The host of friends which Mr. Lippincott claims on this Coast will be pleased to hear of his success in the East, and wish him added and continued achievements in that direction.

\$1500 in Cash Prizes

The Eastman Kodak Company, in announcing their novel photographic advertising contest that is open only to the professional, say: "We make the first prize in our photographic advertising contest one thousand dollars because we want to prove to the world that there are men who can furnish us with photographs that are better, from an advertising standpoint, than anything that can be drawn.

In this department last month we gave all details, together with the full text of the fourteen "terms" governing the contest. The most important of these are again given, with particulars concerning the jury. We might add, the contest closes November 1, 1907.

"Terms: 1. Each picture is to contain a figure or figures and is to be suitable for use as an illustration in advertising the Kodak or the Kodak system of amateur photography. 2. Each entry to consist of three pictures 8x10 or larger. All entries should be addressed to Eastman Kodak Co., Advertising Department, Rochester, N. Y. 10. In sending pictures mark the package plainly, 'Photo-Advertising Contest,' and in the lower left-hand corner write your own name and address. Then write a letter as follows: 'I am sending you today by, charges prepaid, ...prints. Please enter in your Photo-Advertising Competition. Yours truly, ...'

The first prize is one thousand dollars and the second prize five hundred dollars.

Concerning the jury: "As photographic excellence and advertising value are both features of importance, it has been our endeavor to secure, as judges, men who are recognized as among the leaders in their respective lines. In this we have been fortunate and we are pleased to be able to announce that the following-

named gentlemen have consented to act: Geo. H. Hazen, Pirie MacDonald, Theodore C. Marceau, Henry D. Wilson, and E. W. Spaulding. To the photographers of America, Colonel Marceau and Mr. MacDonald need no introduction. In the business end of the publishing world the other gentlemen are likewise well known. Mr. Spaulding is advertising director of the Ladies' Home Journal and the Saturday Evening Post, Mr. Wilson directs the advertising end of the Cosmopolitan, Mr. Hazen of the Century. All of them are ripe in experience—progressive. They are just the kind of men to weigh accurately the advertising value of an idea."

The following suggestions are made: "The jury will be instructed to award the prizes to those contestants whose pictures, all things considered, are best adapted to use in Kodak advertising. As reproductions of the pictures will often be in small size, too much detail should not be introduced. Pictures for reproduction should be snappy, vigorous, for they lose much by the half-tone process. Where apparatus is introduced, it should be up-to-date. If you have not the goods, you can borrow. There may be possibilities in introducing the Kodak Tank Developer idea. A girl? If she is attractive, refined, by all means, yes—unless you think you can better impress the judges in some other way. It is highly probable that we shall want to secure some negatives aside from the prize winners. In such cases special arrangements will be made."

The New Bausch & Lomb Catalogue

The catalogue of to-day is a thing of beauty, a compendium of information, and a milestone of progress. The new 1907 catalogue of the Bausch & Lomb Optical Company's goods is a particularly strong representative of this evolution. It is a handsome book of some sixty-four pages, and a beautiful frontispiece in colors. The cover is a pleasing design in browns and gold, and the pages are of large size. Over forty specimens of excellent photographs are reproduced, many of them full page in size. These, in addition to the diagrams and illustrations of the lenses and the like. Most valuable are two large diagrams which, in connection with

the text under "Concerning Lenses," show the reader just how he can determine the size of the picture when the object is at a certain distance, how to determine the angle of view, and much other valuable information. Focal length, definition, astigmatism, speed, depth, field of view, and the various defects of lenses, are all discussed in a simple, straightforward manner that is as instructive as it is convincing. All in all, this new catalogue, and it seems hard to call it such, is a book that should be secured by every photographer interested in the progress of his art. If your dealer does not have a supply, write directly to the Bausch & Lomb Optical Company, Rochester, New York, and ask that a copy be mailed to you.

Goerz Celor No. 200,000

The Berlin office of the C. P. Goerz Optical Works is specially anxious to regain possession of lens No. 200,000, of its manufacture. It is a No. 2 Celor, and was sold March, 1906, to R. J. Golsen, of Chicago, and was later sold at auction by the receiver when the business of R. J. Golsen was reorganized. The Goerz people are anxious to secure that particular lens, to add to their collection, which includes their Nos. 1, 1,000 and 100,000. They will give the present owner of this Celor No. 2 a new lens, or make any ample satisfactory arrangement with him in consideration of his returning this lens No. 200,000 to them. The present owner of the lens will kindly communicate with the C. P. Goerz American Optical Company, 52 Union Square East, New York.

A Letter from the American Photocolortype Company

Chicago, July 27, 1907.

Mr. Fayette J. Clute,

Call Building,

San Francisco, Cal.

Dear Sir:

I shall be pleased to meet you or your representative at the Dayton Convention. If opportunity offers, I should like to get the photographers' attention to this theme: "The value of copyright and name of maker on any photograph worthy of reproduction for general sale; both from the standpoint of intrinsic money value to the photographer, whether as publisher or lessor of rights to re-

production on a royalty basis, as well as from the standpoint of the publisher to whose business the name of the photographer on the picture lends a money value, the same as the imprint of a painter affixed to his production."

The photographer needs to understand something more than you and the other editors have been able to make him realize, concerning these matters; matters that I have been trying to advertise to him, with results to date that are all but indifferent.

Yours very truly,

CHAS. W. ANSON.

A Disclaimer

A letter from Wilfred A. French, the owner, editor and publisher of our handsome contemporary, "Photo Era," advises us that there is no truth in the statement recently made in a New York publication to the effect that he has sold the "Photo Era" to the publishers of the new "American Photography." Mr. French is certainly in a position to know, and we are glad to give his denial of the report publicity, for the reason that we would sorely miss the monthly visits of such an excellent publication as the "Photo Era," as would its many thousand readers throughout the country. We might add that Mr. French attaches no blame to the publishers of "American Photography" for the report and the publication giving it space was no doubt the victim of misinformation.

The Film Pack's Latest Triumph

The Rochester Optical Company is sending out a neat little booklet setting forth the advantages of the Film Pack, and describing its method of use. The neat little Premograph, which has created such a large amount of interest, comes in for mention, as well. A perfect reflecting camera, a practical and efficient one at that, selling for ten dollars, could hardly do otherwise than jump into immediate popularity; particularly when placed on the market by a firm so well known for the perfection of its goods. But, to return to the latest achievement of the Film Pack: The United States Military authorities, after a series of experiments, have decided on the Premo Film Pack exclusively as the best medium to be used in connection with the newly-reorganized identification service for the Army. Every enlisted

man will be photographed in two positions—a front and side face. The demand was for a system whereby the pictures would be all uniform in character and secured with the minimum amount of cost, trouble and uncertainty, the thousands of men being distributed in numerous posts located all over the country. In selecting the method which they did, those having the matter in hand demonstrated their wisdom beyond dispute.

A New Stock House

R. B. Marsh, who has been with the Eastman Kodak Company for the last twelve years, since its establishment here with the San Francisco branch, has put in a well-chosen stock of Kodaks and photo supplies, at 747 Market Street, where he will be glad to give photographers the benefit of his long experience in supplying the best of everything in the way of photographic supplies. Picture framing will be made a feature of the business, and developing and printing of the highest quality will be undertaken. As the location is a good one, and Mr. Marsh has the qualities which assure popularity, his success is assured.

Picture Postcards

The picture postcard business—which is as yet in its infancy in America—has come to stay. The Universal Postal Convention, at Rome last year, endorsed the picture postcard as an aid to business, and provided special regulations for their universal admission to the mails of the world. The American Photocolortype Company, Chicago, makes the latest and only correct styles, with space on the address side for messages or advertising (one cent postage). All other kinds are out of date. See its advertisement in this issue.

Every scene and object which makes a locality attractive, historic or noteworthy should be reproduced for general circulation on picture postcards. Enterprising men are making fortunes catering to the demand for local views—even in the smallest villages. The American Photocolortype Company, Chicago, can furnish the postcards, ready to send out or sell, in ten days from receipt of copy, description and order. See its advertisement in this issue.

Camera Craft



SHEDDO
ENG'G CO.

San Francisco, California.

CYKO MANUAL



Send for this book and learn to use the best
paper in the right way. Beautiful art prints
from your negatives will be the reward.

THE ANTHONY & SCOVILL COMPANY
BINGHAMTON, NEW YORK

PLEASE MENTION CAMERA CRAFT IN CORRESPONDING WITH ADVERTISERS



IN THE FIRELIGHT'S GLOW
By HENRY ESSENHIGH CORKE

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. XIV.

SAN FRANCISCO, CALIFORNIA, SEPTEMBER, 1907.

No. 9

Firelight Effects By Daylight Only

By HENRY ESSENHIGH CORKE

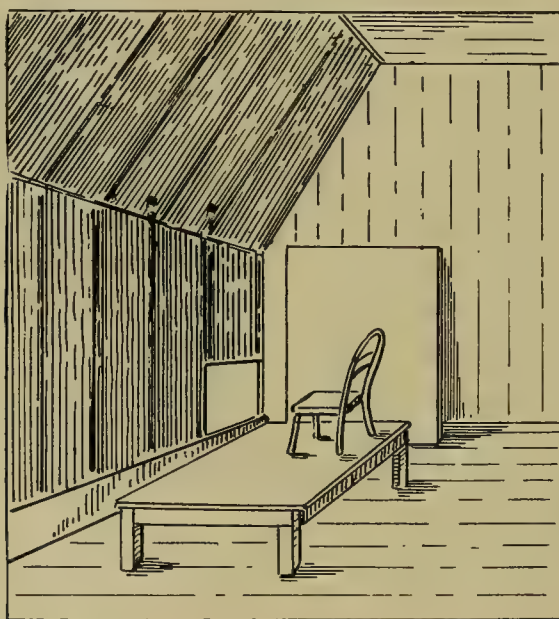
Illustrated by the Author

The invention and introduction of many and varied forms of artificial light for photographic purposes has considerably widened the field of effort for those who strive after "effects." The installation and use of a good arc or mercury vapor lamp makes possible the use of an ordinary room as a studio, and by the careful employment of some form of flash powder many lighting effects which before were impossible are now comparatively easy to obtain.

Perhaps of all the subjects that can be classed as "effects," none have been more often attempted than firelight studies, and the results not infrequently have proven to be quite successful. Such subjects have always appealed quite strongly to a large number of photographers, no doubt by reason of the fascination which the subdued glow and flicker of the firelight upon the subject has for the artistic temperament. And, also, the fact that many of the happiest moments of our lives are those spent in the company of our friends beside the cheerful light and warmth of the fireplace, assures the frequent recall to our minds of these pleasant hours and enjoyable companionship, most particularly if remembrance be prompted by a well executed picture of a fireside scene. For those who have a particular liking for a forcible Rembrandtesque style of lighting, these firelight effects will prove most interesting, as subjects so treated seem to lend themselves particularly well to effective handling of the light, with little or no danger of the results appearing unnatural.

Professional photographers have not to my knowledge given any great amount of attention to this class of subjects, possibly through fear of difficulty in obtaining successful results. However, if the method which I have worked out and which I will describe be adopted, the securing of pleasing results should be very simple, and a considerable amount of work in this line would no doubt be forthcoming. The public is always ready to show its appreciation of a new style of work, and, better still, is usually willing to pay quite well for it if given the opportunity.

No doubt many of my readers have attempted these firelight effects at some time or another, going about it in the ordinary and recognized way by placing some flash powder in the grate and setting it off as the exposure is made. Those who have done so will agree with me that it is exceedingly difficult to obtain successful results, and that doing so generally means the wasting of a number of plates before the desired effect is secured. The difficulty of keeping the flash well outside the picture by various ingenious methods, the uncertainty of the actual appearance and direction of the flash when ignited, and the inconvenience of the attending smoke and fumes, all require considerable time and perseverance to overcome. The greatest difficulty lies, however, in the impossibility of carefully studying and arranging the actual effect of the light upon the subject, owing to the suddenness of the flash. Upon developing the negatives many faults are discovered that could easily have been avoided had it been possible to have studied the arrangement of the subject and the disposition of the light before the exposure was made. Such arrangement and study of the effect to be secured is only possible when the source of light is steady and constant; and, for this reason, flash powders must be discarded if uniform good results are desired.



ARRANGEMENT OF CURTAINS AND
PLATFORM

Being deeply interested in the subject, I have made a special study of firelight effects, and being a professional photographer with one of, if not the, largest and most modern daylight photographic studios in this country, England, I have not lacked facilities for carrying out my experiments. Analysis of the effect of firelight upon a sitter will prove that, when it is to be rendered in monochrome, the only requisite is a very concentrated and acute light striking upward from a point near the floor. Therefore, if daylight is employed, the area of the light source kept small, and the source of light placed on a level with the sitter's feet, the effect is



FAIRIES IN THE FIRELIGHT

at once obtained. Such an arrangement, as will be seen by the accompanying sketch, is very simple and easy to secure. As suggested by the sketch, the entire studio is darkened by closing all the blinds on the top light. The sitter is then posed upon a raised platform, and as close as possible to and on a level with the bottom of the side light. The side blinds are then all closed with the exception of about one or one and one-half square feet at the edge of the platform. A dark background should be used to accentuate the effect, and for the same reason the sitter should be as near the light as possible to obtain all the concentration of light available.

It is not necessary to include an entire fireplace in the picture; a fender laid down upon the platform at the sitter's feet will suffice. With the lighting effect obtained it is only necessary to secure a corner of the fender in the picture in order at once to suggest a fireside. The raised platform should, of course, be covered with a rug or piece of carpet in keeping with the subject. These few simple arrangements are all that are necessary. It will then be found that a careful study of the play of light upon the face and drapery can be made with the greatest ease and satisfaction. Arrangement and alteration can be indulged in by moving the sitter or the camera, or both, until exactly the effect desired is obtained. The exposure can then be made with every confidence as to the outcome, and with all certainty that the resultant picture will portray the lighting as seen upon the subject.

Upon first thought it may be imagined that the necessary exposure under these conditions must be unduly long, but such is not the case. The illustrations herewith were all made by this method, at about two feet from the light through one and one-half square feet of ground glass, giving one and one-half seconds exposure. The lens used was a Voigtlander Portrait Euryscope, working at f-5.6, Royal Standard extra rapid plate, mid-day in February. It should be remembered that the negatives should be fairly hard with little or no detail in the shadows.

Prints of this class of subjects are preferably made in carbon and transferred upon an orange colored paper. Ordinary silver prints and the



A PIPE AND THE PAST

BEFORE THE SAND-MAN COMES

like may be made very effective if they are stained a suitable tint by means of any of the commercially obtainable transparent colors used in coloring lantern slides. Personally, I find no better or more perfect coloring for the work than Bertha Orange, made by the Vanguard Company, Maidenhead, England. The illustrations herewith will prove, I believe, the completeness of the illusion that can be obtained by working in the manner described.



CINDERILLA

What Constitutes "Style"

It is a recognized principle that every medium of art expression should be treated with due regard to its nature and properties. The sculptor varies his technique according as he works in wood, granite or marble; the painter handles his water-color in quite another manner than that he would employ on an oil-painting of the same subject; and the architect, with the subtle sense of the craftsman, carries this principle to such a fine issue as to impart an individual expression, even to particular woods. He knows that what may be an admirable design when executed in brass may be a very bad one in wrought-iron, and is sure to be an absurdity in wood. An artistic motive for a silver flagon, too, is likely to prove ugly for pottery or cut-glass, and so on. There is a genius, born of its particular properties, in every medium which demands individual expression. Observe, therefore, that Art is not satisfied with mere unrelated beauty of form or color. It requires that the result confess some sensible relation to the means by which it has been obtained and in proportion as it does this, it may claim to possess that individual and distinctive charm which we call "style."—Charles D. Maginnis.



"BOYS ARE SO STUPID"

By WM. O. WELCH

Color Photography with Lumiere

Autochrome Plate

By FRANK MORRIS STEADMAN



MESSRS. A. AND L. LUMIERE OF LYONS, FRANCE.
Inventors of the Autochrome Plate.

the picture. The photographer, either amateur or professional, would be satisfied to make a single exposure, not too long, and then be able to secure the colors in the picture by direct development. The arrival at just this point of simplicity, by the Autochrome plate process of A. and L. Lumiere, is the sensation of the year in photography.

Believing that the reader is more interested in the actual working of these plates than in a long dissertation upon their peculiar composition, I will content myself with an account of my own experience with them, regretting that it is impossible for me to show an example of the beautiful results so easily achieved. Easily achieved, surely, as development, conducted in the dark requires but two and one-half minutes, followed by timed immersions in a few other baths in daylight; the whole process, including the washing and drying of the plate, being carried through within half an hour of the exposure on the subject.

The requirements of true color photography are so fully met by the construction of the plate itself that, in the worker's hands, it is absolutely automatic in its production of results. Verily, "the man in the street"

SIDE from those directly in touch with the advancement of photography, the fact that color photography has been practiced successfully for a number of years is undoubtedly unknown to the major portion of the people. Those who have "read of it in the papers" seem to have gained the impression that the employment of the different light filters in making the exposures and the use of various dyes in giving the final color to the print constitutes simply a roundabout method of imitating the colors of nature rather than the achievement of true color photography. To the lay mind, color photography at once suggests a direct process by means of which each and every color in the object photographed shall impress, as it were, its individual hue upon

must now acknowledge that color photography has arrived, and in the form that he preconceived that it should—direct from nature. Excepting a special yellow screen, the Autochrome plate requires no special apparatus. It may be loaded into any plate holder, exposed in any camera with any lens, and developed in the usual assortment of trays available.

From the artisan's point of view the perfect Autochrome picture is obtained by correct exposure and a strict adherence to the directions. The makers give the correct exposure as one second in direct sunlight with a diaphragm f-8 or U. S. No. 4. Using a strip of gelatine printing-out paper as an actinometer, the "first appearance" time in such a light would be one-eighth second, which would be the correct exposure for a diaphragm having eight times the area of f-8, or f-28. Consequently we have a simple rule for determining the correct exposure under any condition of light, a rule based on the time necessary for the first appearance of a perceptible image on a strip of gelatine printing-out paper exposed beneath a small hole cut in an opaque piece of card such as the corner of a note book cover. Using the "f" diaphragm scale, the rule is as follows: The exposure is equal to one-eighth of the "first appearance" time multiplied by the square of the diaphragm value. In other words, if it required one second to make a perceptible image of the hole in the note book cover on the strip of printing-out paper beneath, and it was desirable to use stop f-16, following the rule, one-eighth of the first appearance time would be one-eighth second; and, multiplying this by the square of the stop value, which is two hundred and fifty-six, we would have thirty-two seconds as the correct exposure for the Autochrome plate under these unfavorable conditions. When using the U. S. scale of diaphragms, the rule is as follows: The exposure is equal to double the first appearance time multiplied by the diaphragm number used.

For the benefit of those who are not familiar with the "first appearance" method of measuring light intensity, I will quote from a former article of mine, which appeared in these pages about two years ago: "Cut a hole about a quarter of an inch square in the thin, flexible cover of an ordinary pocket note-book and expose a strip of printing-out paper behind it to any light. The number of seconds necessary to obtain a just plainly observable tint on the spot so exposed, when looked at and compared with the original color of the paper, is the time value of that light. This time value is simply the actinic intensity as measured with printing-out paper, and is called the 'first appearance,' or p. o. p. time.

"If the day is clear and the sun high, the intensity of the light is practically one-eighth of a second. If the sun be about thirty degrees from the horizon or one-third of the way to the zenith, the intensity is about one-quarter second. These conditions, therefore, never need to be measured. By making exposures of one, one-half, and one-quarter seconds, it can be seen at a glance whether the quarter is the faintest discernible, or the second step of, discoloration. If it is the faintest, then the quarter second is the intensity. If it is sufficiently deep to be the second tint in the scale, then it would be known that one-eighth second would be the intensity; and



MISS MARTHA POULAILLON
By F. MORRIS STEADMAN
The First Subject for Autochrome Portraiture
in the United States

this without really making that tint. Every photographer, to be free in his work, should understand for himself the reason for using a certain speed diaphragm to express the speed of a certain plate and subject."

I have tried to give my readers a correct method of timing their exposures with these plates, for the reason that it is only in this direction that they can go far wrong. The few baths required are all quite simple and compounded from chemicals at hand in any average dark room. To go over this part of the subject would be but to repeat the instructions that accompany every package of the plates, and doing so would, of course, be entirely superfluous.

To date, I have exposed six of the twelve Autochrome plates which recently arrived at the Burlington works of the Lumiere Company from the factory at Lyons, France. All have given perfect results by simply following the directions without any previous experience in their manipulation. The first was exposed on a bed of begonias at the residence of Joel H. Gates in this city, Burlington, Vermont. There was a bright sun, and the exposure was given according to the instructions, except that one-fourth second was given with U. S. No. 1 (f-4), instead of one second with U. S. No. 4 (f-8). The rich and varied color of the flowers was reproduced with all truth and brilliancy, as well as the green grass and the brown stone foundation of the house. This wall passed from sunlight to rather deep shadow, and the rendition of the gradations of true color as it passed from the strong light into the deep shade is truly surprising. The other five plates were portrait exposures with Miss Martha Poulailon as the subject, one of whose portraits, from a photograph, accompanies this article. The first of these was a three-quarter figure, standing, with a beautifully colored birch tree trunk on the left and a large bouquet of different colored roses on the right. The "first appearance," or printing-out paper time, was two seconds. This doubled and then multiplied by the diaphragm number, U. S. No. 1, gave four seconds as the correct exposure. The subject has hair of very light gold, black eyes, and a fair complexion. The dress was a light rose color; and, hanging from the neck, was a large gold locket with smooth surface, a red rose being placed so that the locket reflected its color. Besides the usual beautiful colors of the birch tree trunk, there was a band of dark wine-color where the bark had come away. It suffices to say that every color in front of the lens was reproduced to perfection, including the faint green of some trees in deeper shade in the background, and the reflection of the red rose in the gold surface of the locket.

In another, a blue covered book was held in the hand, and a greenish colored curtain was thrown over the back of the chair in which the subject was seated. I firmly believe that no painter's hand could produce even a close approximation to the wonderfully deep, rich purity of the colors and their gradations in the green curtain as its folds pass from light to shade in this picture. The blue, besides being a natural reproduction of the color of the book cover, was of remarkable beauty in the transparency, being enriched by the light coming through.

Before making the exposures on these Autochrome plates, I felt that I would be obliged, on seeing the results, to make excuses or allowances for a new process; and I was decidedly in doubt as to the ability of the plates to render different colors with decisive exactness and purity. However, the experiments are made, and nothing is left for the judgment but to admire and wonder that such beautiful results can now be obtained almost automatically and directly from the face of nature. It is difficult to paint word pictures of colors, but some idea of the real beauty of the autochrome transparencies may be conveyed by stating that the colors are of exceptional purity, as of a stained glass window toned down and enriched by the natural texture of surfaces, while the subtle gradations of the colors as they pass from high light through half-tones into shadow, with the perfect modeling maintained throughout, can but reveal to one the existence of a new art, an art with which, by reason of its combined simplicity and perfection, there is no other to compare. This process, eliminating as it does the complicated manipulations associated with other methods of color photography, virtually commands the worker to look to the artistic excellence of his arrangement of the subject within the picture space. It says to the worker: "I have within me the power to reproduce the color as well as the form texture and light gradation of that which you place before the lens. When I am finished, I will present all the elements of beauty that your skill has been able to impart to the subject which you have arranged, and to which you have exposed me." For this reason an art autochrome must be a mental production and one that the hand has not vulgarized either in creation or by modification. While it will be "straight photography," it will also be straight art; a pure mental and temperamental product from its conception to its completion. As surely as the mental conception of the beautiful can be developed without developing the hand, as artists can learn to measure the actinicity of light; just so surely we shall have famous autochromists, and autochromes valued at a high figure for their intrinsic art value and artistic qualities.

The painter, however, cannot make autochromes until he learns the truths of actinism, truths which he did not need as a painter. He must learn the laws governing intensity and gradation, because these actinic gradations create the visual color gradations. These last can be secured only by correct exposure to a rightly actinically composed subject. What better means could we ask of bringing the student into close personal relation with nature herself than the study of the causes which create visual conditions? Are these truths to be slighted because they are of a geometrical and exact nature? Rather, should they not be utilized to the full for that very reason, because they are reducible to studiable form? If this exact study will not assist the artist in his development, then the orator need not study language, nor the musician harmony. But this study must be based squarely upon the truths of actinism, for the reason that the purely visual effects of nature cannot be handled in exact terms; they are not reducible to a science. The essential knowledge of the actinicity of light as measured

in seconds, and the actinic gradations of various subjects, should be acquired in an hour under proper instruction. Trivial as this may make it seem, the knowledge is absolutely essential to the reproduction by the worker, as an artisan, of what he has, as an artist, created.

But why should we, here in the United States, allow ourselves any curiosity as to these plates? On the boxes (the plates are packed four in a box) in which the plates arrived from the factory at Lyons, is printed, "Export to the United States prohibited." Surely the Lumiere Company will not boycott us for all time. The writer would like to see the patent protection of this plate entirely removed by the payment, say, by France, Germany, Great Britain, and the United States, of a sum satisfactory to the Lumiere Company, so that the output of these plates could be made more in proportion to the demand, and at a commercial profit only. Naturally, it is impossible for the factory to supply the demand. One thousand plates a day is the present capacity. Increase this ten times, and we have but two thousand five hundred boxes of four plates each to divide between the waiting camerists of the world. I fear that the greater part of them will be on the waiting list for a long time to come.

The Fixing of Bromide Prints

By E. PORTER CHAPIN

A plain solution of hypo will answer as a fixing bath for bromide and gaslight papers and it is sufficient that it be only half the strength demanded for plates and films. In passing I might explain that a saturated solution of hypo is one of about a fifty per cent. If this be diluted with an equal bulk of water it becomes a twenty-five per cent solution and is suitable for plates and films. Dilute this in turn with an amount of water equal to its bulk and it becomes a fixing bath suitable for papers. It can at once be seen that it is advantageous to keep on hand a saturated solution of hypo. Not only is it extremely convenient, but a fresh solution of hypo is almost ice cold, and if used in that condition it will work very slowly, and, in the case of papers, possibly produce blisters through the change of temperature which the prints will experience in going from the developer and rinsing water into the cold fixing bath.

In the case of papers, and we will confine ourselves to paper through the rest of this article, the addition of alum to the hypo bath was early found to be beneficial as a means of hardening the film, so that mounting and drying would not necessitate so much care. The addition of an acid was found to minimize the staining due to oxidization of developer carried over into the fixing bath in the film of the paper. Long development is also inclined to stain the high lights and a rightly compounded acid fixing bath will remove this somewhat, practically entirely if it be not too pronounced. It is, however, much better to avoid both these dangers,

the first by rinsing the print well between developing and placing in the fixing bath, and the second by giving an exposure that will insure the completion of development in the proper length of time. An air bubble in contact with the surface of the print or contact between its surface and another piece of paper will keep the fixing solution from reaching the emulsion at that particular point, and even the small amount of developer allowed to remain in the film after a quite careful washing will oxidize and produce a stain. The right kind of a fixing bath will do wonders almost, but it can do nothing unless it is allowed to get at the emulsion before staining has gone too far. It will not displace large masses of air that are caught and held under the print when it is slapped face downward into the bath, and it is unable to keep each print clear from its neighbor until it has completed its work.

There has always existed a certain amount of disinclination to use a mixture of hypo, alum and acid as a fixing bath, owing to the claims put forth by workers in the past that sulphurization took place when alum was added, that the hypo was decomposed when an acid was added, and other reasons discredited the practice. These dangers were and are all the more dreaded in the case of paper, as there is no visible evidence of the completion of the fixing process. However, there is little danger of a rightly compounded bath being other than effective, and should the worker have any fear on that score he has a very simple means of satisfying himself, ready at hand. All he need do is to take a waste plate and cut it into strips, insert the end of one of the strips into the bath with the last print, and when that end is cleared, turn it around and fix the other end. If the prints have been kept apart so that the bath could act over their entire surface it is certain that fixation is then complete, as the film of the plate is much thicker than that of the paper and the bath can reach the film of the plate only from one side.

It is in the matter of compounding the bath that the liability of decomposed hypo is invited. Picking up the first handbook within reach, I find a formula labeled, "standard fixing bath," that gives the amounts of the water, chrome alum, potassium metabisulphite, and hypo, and then adds, "Dissolve in the order given." This would no doubt be the easiest way to proceed in the compounding of such a bath and the use of metabisulphite does away with the use of sulphite of soda and an acid. However, the metabisulphite is rather costly and not always obtainable in this country. Substituting acid and sulphite of soda for the metabisulphite in this formula would necessitate an entirely different order of compounding if decomposed hypo was to be avoided, and dissolving the alum first is not advisable if the formation of sulphur is feared.

Another way of escaping the direct introduction of an acid is to use sodium bisulphite lye. This brings us to the acid fixing bath put forth by Messrs. Lumiere, which contains that chemical or acid sulphite lye, according to the translation used. This lye is a cheap by-product of the French method of manufacture, being the mother liquor from which bisulphite has been crystallized out. In this country and in England it is not on the market, but a saturated solution of sodium bisulphite, and,

according to one authority, a solution of the strength of forty per cent, will give exactly the same results. Bisulphite of soda is cheap, easily obtainable, and in solution is practically the same as a solution of sodium sulphite acidified with sulphuric acid. I am mentioning the Lumiere formula for the reason that it is authoritative and gives us a general idea of the required compounding to secure a stable bath. It reads:

Hypo	3 ounces
Sodium bisulphite lye.....	100-150 minims
Chrome alum	50 grains
Water	20 ounces

The hypo is dissolved in twelve or fifteen ounces of the water and the soda lye added to the remainder, the alum being dissolved in this latter portion last. The two solutions are then mixed. This brings us to the matter of acid-alum fixing baths recommended by our manufacturers in this country, of which the Velox formula is a typical example. This formula is rather strong in hypo, but as the bath prevents blisters, that objection to a strong bath does not hold and the user has the advantage of more certainty as to fixation being complete. Reduced to its simplest form, the bath is made up by taking the desired amount of a one-in-four, or twenty-five per cent, hypo solution, and to each ten ounces adding one ounce of the "hardener" made up as follows:

Water	20 ounces
Sulphite of soda crystals.....	4 ounces
Acetic acid No. 8.....	12 ounces
Alum, powdered	4 ounces

The sulphite of soda should be dissolved in six or eight ounces of the water, the acid slowly added, and finally the alum fully dissolved in the remainder of the water, added to the first solution. Made up in this way the formula indicated will give a bath that will harden and clear the film during fixation and there will be no danger of the alum causing sulphurization or the acid decomposing the hypo. A stock solution of the hardener should be kept on hand, and if the saturated solution of hypo is always available there will be little inclination on the part of the worker to overtax the fixing bath and in so doing endanger the permanency of his prints. All the chemicals required are cheap and with the stock solutions ready at hand it is but the work of a moment to prepare a fresh bath.

The Expression of Beauty

The mission of art, music and poetry is to express and reveal, with a beauty beyond our own attainment, what we feel, what we love and what we hope for. Many, or most, of us are capable of great feeling, but to few has been given the power of great expression.

A New High-Speed Shutter

By WALLACE L. BROOKS



OAK TREE BLOWN UP BY UNITED POWDER CO.,
SAN JOSE, CAL. By ARTHUR H. GREEN
1-1000 Second Exposure. Note sharpness of the smoke image

THE announcement of a new photographic shutter, as made in the "Scientific American," of March 30th last, interested me greatly, for the reason that I have given the subject considerable study for a number of years. A cut showing the mechanism of the shutter accompanied the article, and it did not require the reproductions of high-speed photographs that were also shown to convince me that at last a decided advance had been made in shutter construction. Calling at the office of "Camera Craft," I was shown a copy of the specifications on which the patent was granted a few months before, and the eleven illustrations used explains the workings of the shutter most completely. I learned, about this time, that one of the shutters was expected to be in the hands of Arthur H. Green, of Saratoga, California, very soon, and, knowing Mr. Green, I took the first possible opportunity of looking the shutter over. It is certainly a handsome piece of work, and Mr. Green advised me that it fulfilled his highest expectations.



Made in winter, 1-2,000 Second Exposure, 4 A Kodak

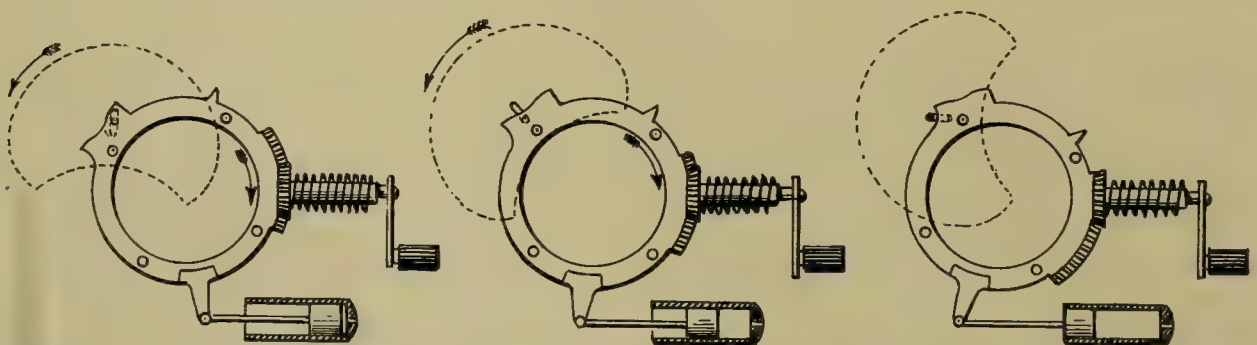


OUTDOOR ACROBATS

1-1/4000 Second Exposure, Diaphragm—f. 6, 8.

In order to clear up the ground somewhat, it will be well to say a few words concerning the shutters heretofore used. Existing types of between-lens shutters which open from the center outward and close again in the reverse direction not only sacrifice a considerable amount of light in so doing, but they fail to give marginal definition if driven at a speed above that of about $1/150$ of a second. In order to overcome these difficulties the focal plane shutter was adopted. With it, exposures of $1/1,000$ of a second were made possible, but other drawbacks were encountered. As the plate is exposed by a slit in sections, distortion in moving objects resulted, for the reason that in the interval during which the slit traveled from one given point to another the object had moved ahead, so that the position of different portions of the moving object was not harmonious.

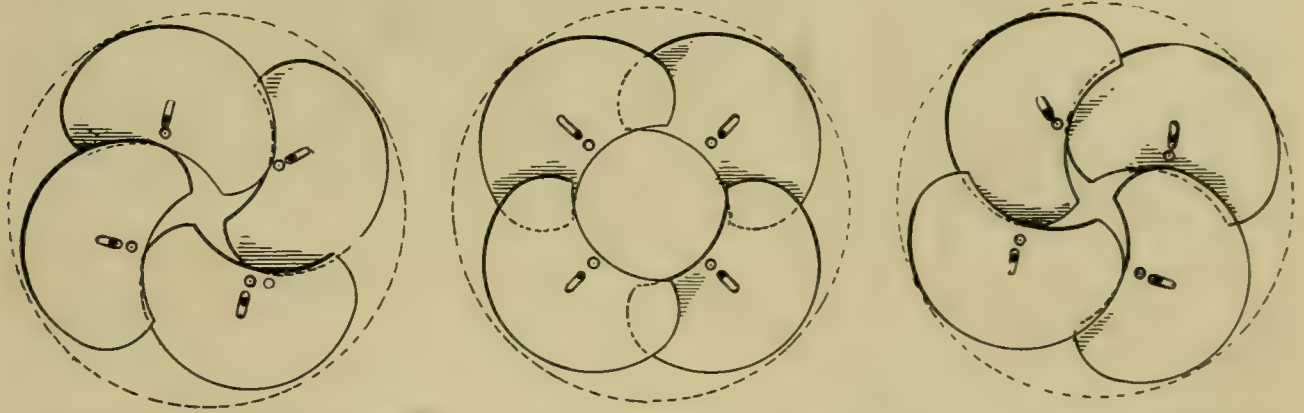
Another fault of the focal plane shutter was apparent when higher speeds than the $1/1,000$ of a second were attempted. As the slit was decreased and the speed increased the efficiency of the shutter fell off very badly



Showing only the driving ring, winding handle, air cushion and one of the four shutter blades dotted in. The direction of the motion is shown by arrows. Note the short travel of driving ring in making an exposure.

owing to the fact that the light rays suffered from interference. To overcome this, recourse was had to lenses of large aperture on small cameras, so that more distance could be had between the lens and the object, and so as to concentrate more light upon the plate. This, of course, resulted in a great loss of depth and definition, lenses of a working aperture of f-3.6 and f-5 being used.

The new multi-speed shutter, invented by Gustav Dietz, of New York, overcomes these difficulties in the most simple and ingenious manner. The focal plane position is abandoned for the between-lens position. The lack of marginal definition is overcome by a shape of blades that open from the center in the form of an increasing star, closing again from different points of the lens-apertures periphery, and thereby exposing the corners of the plate more than the center. This movement of the blades



Showing the position of the shutter blades at start of opening, full opening, and just before closing. Note that the portion of lens uncovered at closing is different from that at opening.

is clearly shown in the illustrations herewith. Leaving aside the mechanism introduced in order to give the shutter capacity for slow, instantaneous, bulb, and time exposures, there remains but the driving ring shown in our series of illustrations and the blades, one of which is shown, to be considered, the four pivots on which the blades turn, the winding handle at the left, and the air cushion valve at the bottom. All except these last two are enclosed within the case of the shutter. The ring to which the blades are pivoted is driven by an adjustable spring, which is coiled about the spindle, as shown. This spindle has at its inner end a beveled gear which meshes with the rack portion of the driving ring, this latter traveling on ball bearings in both directions. When the tension is put upon the spring by turning the small crank shown at the right, a release allows it to act upon the gear, forcing the driving ring to travel at a speed according to the amount of tension secured. The blades make but a half turn during an exposure, returning to their original position in making the next exposure; the winding of the spring being done in the opposite direction for each alternate exposure. The illustrations show three phases of their motion: opening, full open, and closed. It will be noted that each blade is slotted centrally to receive a pin, which is stationary in the shutter case. This pin guides the motion of the blades in such a way that at the start of the opening motion, where the stationary pin is most distant from its fellow pivot, motion is very small, and the opening consequently very slow. As the full opening is approached, the distance becomes less and less, resulting in a very fast movement, so that at full opening the travel of the blades is much faster in comparison with the uniform speed of the driving ring than at any other part of their travel. As the blades close, the speeds are again decreased as the distance again becomes

gradually less. All this is done without any side or center strain, and it will be noticed that the actual distance traveled by the driving ring is but a small fractional part of its circumference. The movement of the blades gives a brilliant, uniform illumination of the plate, and renders it possible to use lenses of ordinary speed with exposures of $1/2,000$ part of a second, and at the same time secure good definition without distortion.

The maltese cross of the excess opening makes vignetting impossible with short exposures on large plates with wide angle lenses. While diaphragms are necessary to secure depth with the focal plane shutter, depth is secured with this form of opening without sacrifice of speed. The shutter is absolutely noiseless, because the blades are arrested at the end of their motion by the air cushion.

The retarding device simply forces the spring to spend its force slowly, and for that reason the exposure will be quicker, as the tension of the spring is greater. Bulb or time exposures are made by throwing in a catch, which stops the driving ring half way in its motion, another pressure of the bulb releasing it. The retarding action of the air cushion can be retained for slow instantaneous exposures and those of several seconds duration, and this is advisable on account of the greatly increased definition which the slow opening and closing gives. I should have mentioned that the arm of the piston, by a convenient and simple device, can be used either to close the air cushion, to prevent any shock through high speeds, or to connect the retarding device to driving ring for more lengthened exposures. In the latter case the increased definition results in out of focus objects being softer, but never indistinct. It will be found that objects situated before or behind the point focused upon with the open lens, and appearing quite indistinct, are brought back to soft definition in the resultant negative by the action of this shutter. And this is done without sacrifice of illumination by stopping down of the lens or the vignetting effect of a shutter form that opens from and closes to the center. This power is very useful in landscape and portrait work, as it permits the securing of a uniform softness throughout the picture in place of a sharp-cut effect in one plane with rapid falling off before and behind. To illustrate this matter most effectively, I will introduce a few examples, showing the effect secured by focusing on a point a little in advance of the subject. These "advanced focus" examples were all made with a full open lens, and as the exposures quoted will indicate, they are made with an exposure much less than would have been necessary had the lens been stopped down sufficiently to have secured the same amount of definition, using an ordinary shutter.

To return to the mechanism of the shutter as compared with some of the other between-lens forms in which the blades strike the periphery with a blow at opening and return to position of closing with another, the blade of this new shutter gives no blow at all at any point of its movement, for the simple reason that at no time in its movement does any part stop in its rotating travel except after the completion of the exposure when it is brought to a stop by the most simple and noiseless device known—an air cushion. The further marked advantage of the new form lies in the



Made at 6 p. m. 1-100 second, Diaphragm $f=6.8$. Advantage has been taken of the extreme depth of focus which this shutter gives and the pleasing atmospheric effect without biting sharpness in any part has been secured by focusing on a point a little in advance of the view. Compare effect secured with the usual quality of like open lens work at high speed

single spring used to operate the shutter. As this spring is wound first in one direction and then in the other it must maintain a constant strength, and it only requires that it be made and tested to a certain amount of tension, and this is easy of accomplishment, to give a scale that will indicate the exact fraction of time consumed in its action according to the tension given by the winding crank. The movement of the driving ring is but small, as can be seen by the illustration, the blades make but half a turn for each exposure, and the compound motion of the latter is against and from the stationary pins, thus giving the least friction possible.

The illustrations herewith should be observed carefully in connection with the notes beneath. The experienced photographer will more fully



Another example showing depth of focus secured with a wide open lens of 10 $\frac{1}{4}$ inches focus. Color screen used, $\frac{1}{2}$ second exposure

appreciate the results if he will estimate in his own mind what would have been obtained with ordinary between-lens shutters under like conditions, or with focal plane shutters at the same speed, but with the lens stopped down enough to have secured the same amount of definition. Doing so, his conclusions will testify more strongly to the merits of this new and simple form of shutter mechanism than any words of mine setting forth its merits.

The Impulse of Art

One nation dates the birth of its art a thousand years ago; another is looking for it still to come. Only so much is certain that in the first stirrings of an impulse to art, under all zones and at all times, a remarkable harmony may be observed. It is the original universal language of mankind, the traces of which meet us in the islands of the Southern Ocean as on the shores of the Mississippi, among the old Celts and Scandinavians as among the heroes of Homer and in the interior of Asia; only in these primeval times this language does not pass beyond its first stammering utterance. Man is still too much fettered by surrounding Nature; he ventures still too little beyond her immediate conditions for him to be able to rise to the portrayal of images of individual freedom. Hence these primitive works seem rather the results of the workings of a general law of Nature than the conscious creative efforts of individual man. The farther man advances, in the course of time, on the path of progress, the clearer stand out the differences of individual minds and the richer is the abundance and variety of individual character.—Clarence Cook.

Ozobrome—A Correction

In our July issue we published an original article from the pen of the inventor, Thomas Manly, of England, dealing fully with the Ozobrome process. The article reached us just as we were going to press; in fact, it took the place of other matter intended for that issue; and in the attending rush, a typographical error crept in, although it is hardly one that could cause any trouble. The second line from the bottom on page 325 of our July issue should have been left out, and its place filled with a row of three squares, labeled in rotation A, B, and C, representing the three dishes as described as being used by Mr. Manly, in the article.

The Eastman Kodak Company advise that they will have Ozobrome material on the market during September, and a letter from Mr. Manly, under date of August 17th, informs us that he will act upon our suggestion and study the matter of putting up the sensitizer in solid form for convenience in shipping, adding: "There is no doubt but what it can be done." Both of these items will be good news to our readers, a surprisingly large number of whom have sent to our Department C. for Ozobrome booklets.

Domestic Animals in Photography

By W. ROB WHYTE

Illustrated by the Author

"The basest thought about man is that he has no spiritual nature; and the foolishlest, that he has or should have no animal nature."—Ruskin.

To the thoughtful photographer the animal kingdom is but a material representation of the varying characteristics of the human mind. We all know how strikingly some human faces remind us of certain animals; and we also know that this resemblance is by no means accidental, that it is a preponderance in the human being of certain characteristics peculiar to these particular animals which has caused this resemblance. And our love for certain species has more to do with our admiration for the qualities they represent than with their actual individual utility. We think much more kindly of the innocent lamb than of the young pig, although



CHUMS

DOBBIN

the latter has the greater value and the greater intelligence. To call a child a little lamb or a little pig expresses two very different ideas; so that the significance of these two animals has more to do with the sentiments suggested by them than has their material usefulness. It is something in ourselves which we value, or of which we have an appreciation, which arouses in us the varying feelings which we have toward the different species of the animal kingdom. What we admire must of necessity have some quality which is within ourselves—not necessarily in a highly developed form, but it must be present or there can be no recognition. The eye without a mirror is sightless; the scientist will tell you that certain sounds are inaudible to the human ear, and we as photographers know



A LICK AND A PROMISE

that certain colors of light are invisible to the human eye. So much is this the case that we are only happy among those of our own way of thinking. "Birds of a feather flock together." The most horrible hell for a bad man would be life among the angels. And so the graces of grouping and attitude among our animal friends can be seen and recognized only as they reflect something within ourselves.

The most effective animal pictures are those which express artistically some distinct characteristic of the animal portrayed. And this is why Rosa Bonheur's horses and Landseer's dogs are not mere pictures of horses and dogs—they are horses and dogs in pictorial form. This ability on the part of these artists came from a thorough understanding of the horse and dog nature. They had something in themselves which corresponded to and had sympathy with the feelings and thoughts of horses and dogs. On the other side, take Sydney Cooper's sheep. With all their perfection of technique they are still the wooden dummies covered with sheepskin from which he painted.

The draught-horse is a great favorite with the pictorial photographer. There is something so much more natural about him than is the case with his brother of the turf. It is similar to the difference between rough little Billy and Algernon with his hair carefully brushed. One may be a picture, but the other only a portrait.

But the true artist is never satisfied with his own work, however well done. The ambition which has spurred him on to his present proficiency will still give him no rest. It is ever upward and onward; his ideals are ever far ahead; he is always looking to something beyond, and his powers of appreciation are ever growing. This is the price one pays for health and strength in any vocation. Training, exercise, ambition, and then endless hard work. But therein lies all true pleasure—in the ability to do something worthy.



LET US WANDER TO THE RIVER

Reception Room and Sales

By "OLD FORTY"

To keep the reception room neat and clean in every detail so that it will be attractive to the visitor should be the ambition of the far-seeing photographer. An avoidance of all friction at each and every point is sure to act as an inducement for the visitor to become a patron, and then to keep that patron continually on your books should be your next most earnest endeavor. We all know how difficult is the position of a salesman in any line, and few situations present so many opportunities for the salesman to make costly errors as does the reception room of a photographic studio. To humor some petty whim and at the same time make a sale that will bring the patron back is no small achievement. "How did you sell Mrs. Blank such a big order?" Jones used to be asked. "She asked me herself what she ought to have," was his invariable reply. Therein lies the whole secret. Mrs. Blank had come to have the fullest confidence in Jones, knowing by long experience that he would give her only his best productions and that every picture would be perfect of its kind.

This, then, is the key: Get the full and complete confidence of your patrons. Only the very best material and the latest styles can make this possible. Dozens and dozens of good and able photographers have allowed their trade to slip away by slighting some trivial point in order to make a few additional dimes on a small order. Better, oh, so much better, fellow craftsman, that you go to the other extreme and make that outgoing order surprisingly good value. It will be a standing advertisement for the studio and you whose name is so tastily printed on the mount. Yes, even if it costs a few dimes more than you anticipated. You will find the small sum will return to you increased many fold. My pen has often set forth the advantage of giving one's best efforts to every picture rather than trying to secure the largest possible profit. Just now, when the demand, especially in California, is for the finest results obtainable, would seem to be a good time in which to redouble our efforts, and, with renewed energy, show our patrons that we can and will give them artistic productions of the highest quality in making our reception room sales.

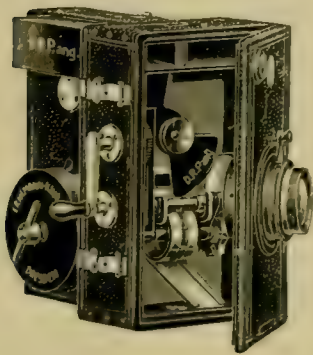
Our Education

Life and education are identical because the period to which we traditionally confine the latter term is merely the period of more formal, definite, determined adjustment; yet just so long as life lasts and our impressionability and plasticity remain, we are always adapting ourselves to this environment, gaining power like Antaeus of old, each time we touch the Mother Earth from which civilization springs.—Nicholas Murray Butler.

The Kinematograph in the Home

Dr. Gustav Eisen, a well known local amateur, and a lanternist of no mean ability, spent some time in Germany within the year. He advises us that the popularity of the "Kino" apparatus in that country is more than justified by its mechanical perfection, simplicity and thorough practicability. Despite its low price it is by no means unsatisfactory, in fact, its working is characterized by a smoothness that is equaled only by the best of the high priced machines. One of the leading manufacturers in this country expects to be able to supply these popular priced moving picture machines at no very distant date. Our readers will have the earliest possible announcement but in the meanwhile, Ehrmann & Company will gladly supply circulars. A complete catalogue can be seen at our office or a duplicate copy will be loaned to out-of-town readers who may be interested.

We need not go far in any large city before our attention is called to the many advertisements, posted almost everywhere, directing us to Kinematograph theatres. No room is too small to hold one, nor is any hall too large. We dwell and live in the era of the kinematograph. So accustomed has the public become to these theatres and to this kind of amusements, that it would keenly feel the loss if they all at once would for some reason or other be swept out of existence. Living and moving pictures are now integral parts of the amusement offered in any city, large or small.



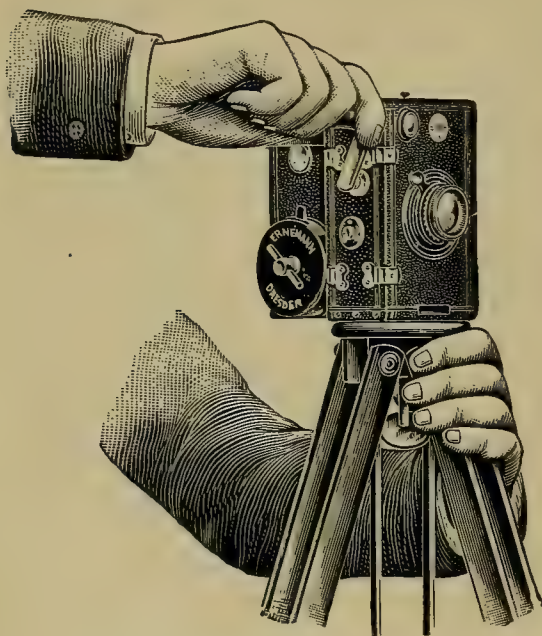
At present, however, the perfection of the views leaves much to wish for, and some of the pictures shown have a questionable esthetic value, for instance, the composite and unnatural pictured scenes of a purely humorous nature that are often the chief part of the program.

It is to the amateurs that we must in the future look for an improvement in the views shown and a betterment of the public taste. In the hands of the amateur this new art of making moving pictures has undoubtedly a great future. In his hands the kinematograph will become not only an amusement but a powerful aid to instruction and education. The ordinary photograph may recall isolated scenes such as one comes upon in his travels or incidents connected with his family life. The kinematograph, on the other hand, will reproduce, not isolated incidents, but continuous actions seen at home and abroad. Think of the charm of faithfully reproducing at one's leisure the plays, pastimes and intellectual development of the children, the visits of your friends, the festivals and outings of your family. What a treasure to possess a living photographic album of the main incidents in one's life, either at home or abroad. The amateur may now take with him on his travels to near or distant cities, or on his walks through the suburbs of his own town, a small hand kinematograph, which will record any or every phase in the life of the individual or in that of the nation.

After many futile efforts and costly experiments the well known German establishment of Heinrich Ernemann A.-G., Dresden 21, has succeeded in producing a diminutive, portable kinematograph, which answers every purpose. The Ernemann "Kino" is no larger than a small hand camera, and it is so easily operated that it is a real pleasure to employ it in securing the views desired.

The machine complete weighs only four pounds and measures, in its case, 6x6x3 inches, but in spite of its small and portable size, it is not a toy

but an instrument of precision in miniature scale. In addition to taking the negative, the same machine can be used for printing the positive, and finally for projecting the finished picture.



The "Kino" will project a moving picture with lime light, up to 4x6 feet; with acetylene gas, up to 3x5 feet, and with incandescent gas up to 2x3 feet. There is a marked absence of flicker when the pictures are displayed on the screen as the mechanism is simple and perfectly adjusted. The camera contains the lens and the mechanism for working the shutter, together with the drum that passes the film in the field of the lens; this last being an anastigmat in focusing jacket, working at an aperture of f-2. The shutter consists of two fans revolving in front of the film, and so adjusted

that they will give any width of slit, in fact, they constitute a focal plane shutter. The film holder consists of two chambers. The unexposed film is placed over the spindle in the upper chamber, out through a slit, through another slit below into the lower chamber and onto a spool where it is wound up by a clockwork mechanism. The film is sold in lengths of five, ten and fifteen yards, lasting respectively one-half, one, and one and one-half minutes.

Exposure of the films, their development, fixing, washing, as well as the printing of the positive films; all is done in the simplest possible manner. The size of the negative images is $1 \times 1\frac{1}{2}$ cm., and twenty may be taken in one second, all being perfect, well defined, and clear exposures free from blur and traces of movement. The capabilities of this marvelous mechanism can be better realized when it is understood that the shutter opens and closes automatically forty times every second, during the same period moving forward twenty times. The camera is not an expensive one, costing no more than a good hand camera. It opens to the amateur a particular, new, and interesting sphere in photography; enabling him to demonstrate incidents in his own life to his friends, his family and posterity in a manner only a little less realistic than the actual scenes.

Individuality

The degree in which a man individualizes his work and gives it the quality of his own mind and spirit is, therefore, the measure of his success in giving his nature free and full expression. For work, in this large sense, is the expression of the man; and as the range and significance of all kinds of expression depend upon the scope and meaning of the ideas, forces, skills, and qualities expressed, so the dignity and permanency of work depends upon the power and insight of the worker.—Hamilton Wright Mabie.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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The P. A. of C. Convention

The Photographers' Association of California will hold its Fourth Annual Convention at Forester's Hall, Oakland, October 31st and November 1st and 2nd. It will be the largest and most enthusiastic State gathering of photographers ever gotten together, if indications mean anything. Encouraging letters have been received from all sections of the State, and the feature of the Convention will be a large collection of exhibits of country photographers' work, the kind they turn out and deliver to their patrons every day. Awards of merit will be given to these exhibits, after grading them into towns of certain sizes. The man in a town of five thousand will not be asked to compete with his more fortunate brother of the larger town. In other words, it will be a convention for the men who can profit most by a convention; the men who are trying to do better work with little in their favor. All the available space for manufacturers and dealers has been eagerly taken up, and the advertising space in the program is being held at a premium. There will be a demonstration on the new Ozobrome process, the material for which will be on the market about that time. There will be trolley rides, demonstrations, husking bees, speeches, clam bakes, wine suppers, and the like. At least, the committee in charge have given a long list of features which they say will have to be cut down somewhat, as it would require about ten days to get through it all. Information is being sent out by E. J. McCullagh, President, 1111 Washington Street, Oakland; Fayette J. Clute, Secretary, Call Building, San Francisco, and R. E. Scharz, Chairman Convention Committee, 473 Fourteenth Street, Oakland. If you have not received any of the printed matter, send in your name and address at once.

Color Photography and the Autochrome Plate

We publish in this issue the first original authoritative article on the color process of the Lumiere Brothers, involving the new autochrome plate, to appear in this country. This is a contribution from the pen of our old contributor, F. Morris Steadman, a gentleman who is himself of no mean ability as an inventor and originator along photographic lines. We would also call attention to the fact that the first sample to reach this country, of this new process in color photography, is in the hands of another of our contributors, E. Stanley Thomas. In addition, our Pro-

fessor Blackburn has under way a full series of experiments with these plates, which he will shortly report for the benefit of our readers. Some of our contemporaries have copied and rehashed articles appearing in the foreign magazines, but we have preferred to await an opportunity of giving our readers an original article based upon some tangible knowledge of the process, and one from a worker in this country. Commenting upon a process, much less attempting to describe it, without even having seen one of the resultant pictures, may display considerable editorial confidence, but it is hardly flattering to the understanding of the readers.

The National Convention

Again we have failed to receive a report of the doings of the National Convention. It seems that some of our brother editors were more in need of the space filling, "Motion seconded by Mr. ———." "Motion withdrawn." "I move that the nominations for president be closed," and the like. We have been advised that the few copies of the proceedings were eagerly attached by the editors present, and for that reason there was none that could be sent to "Camera Craft." We learn, however, that the Dayton Convention passed off quite enjoyably, and while some good speeches were made, some of the speakers took occasion to complain that those in attendance remained scattered about the several rooms instead of attending the meetings. Possibly they held a too keen recollection of the paleaceous grains of pseudo-scientific paneulogism offered them at the last gathering.

A Popular Lecture by Mr. Prince

In our "Club Notes" this month is a brief mention, in the news of the California Camera Club, of their last lecture, "The Grand Canyon of the Colorado," by Frederick W. Prince. We have had our own high estimation of this lecture confirmed so often and so enthusiastically since its presentation but a few weeks ago that we wish to particularly extend compliments to the lecturer upon his success. Not only were the slides of the most interesting character and a great credit to Mr. Prince as a photographer, but the lecturer most effectively and entertainingly described the wonderland which the pictures portrayed. It has been a long time since the club and its friends have been so well entertained by a lecturer so well fitted for the work and one whose efforts were so singularly free from the little faults that so often mar the best of lecturers. Thoroughly conversant with his subject and himself in perfect sympathy with the grandeur which his camera had recorded, Mr. Prince scored a signal success with his audience. He has several requests to repeat the lecture before other large gatherings and will do so to the extent made possible by his other duties. Mr. Prince is the popular city ticket agent for the Santa Fe Railroad Company, and as such is no doubt well known to many of our readers who have not, heretofore, known of his success as a photographer and lecturer. His recent Alaskan trip resulted in many fine pictures, and these will be shown the California Camera Club and their friends a few months later, as soon as the slides can be prepared.

Why is it?

In our "Club Notes" this month will be found a statement over the signature of R. L. Sleeth, Jr., President of the American Federation, concerning the action of the largest Art Institute in this country—the Carnegie Institute of Pittsburg, Pennsylvania. The directors, after having given space in the galleries of the Carnegie Institute to exhibitions by the Photo-Secession, the first two American Salons, and other photographic exhibitions, have closed their doors on photography, or at least on the American Federation of Photographic Societies. Their action in so doing marks a retrograde movement in the gradually increasing recognition of photography that is so gratifying a feature of the times. It is, of course, unwise to condemn those having the matter in hand without giving them a hearing, and to the end that full information may be available, we have written the officers of the Art Institute asking them to set forth their side of the matter, if they will do so. Their reply, if received, will be published in our next issue, together with further comments by us, if this last seems needed.

Lost—One White Winged Dove

A photographic editor over in England commented recently on the "mildly effete condition" of some of the photographic magazines in this country; whereupon, one of the editors on this side became quite irate, and retorted that the accuser was offering books from an unsold stock as a reward to his old readers for securing new subscribers. Our English editor next explains that the publishers of his magazine could not give away books that they had already sold, and goes on to say: "But, of course, the whole paragraph is just a wild howl brought out by the flick we gave our contemporary on a particularly raw place." Really, gentlemen, this is going entirely too far. There are too few of us to quarrel, and we all have enough other troubles. A few months ago we indulged in a few little pleasantries ourselves, but our brother editors seemingly all took it in the good-natured spirit in which it was intended. The fact that water instead of land separates the author of a little friendly sarcasm from our fiery brother editors of the East, should not make such a difference. Too small a circulation is not so bad as too large a one, in the photographic field, at least; so why quarrel over the matter? Will somebody kindly come forward with a white winged seagull of peace.

Our Cover Last Month

The very effective picture which graced the cover of our August issue should have been credited to Albert J. LeBreton, President of the California Camera Club. The reproduction failed to do the picture full justice, as the original was a beautiful toned bromide of a particular shade almost impossible as copy for the half-tone process. Mr. LeBreton recently sustained quite severe injuries through a fall in alighting from a moving street car. His many friends will be pleased to learn that he is again about with all his accustomed spirit and good humor.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Making Combined Negatives

Dr. Mebes, in an article on the above, describes two methods which he believes to be improvements on the technique of Horsley Hinton. The one here given is of seemingly easy manipulation:

"I bathe the dry plates for three to five minutes in a two to five per cent solution of potassium bichromate, or ammonium bichromate; the percentage of the solution only depends on the character of the used negatives. I drain the plate mop with fine, flawless botting paper, the film side, and am very cautious that no drops of the bichromate solution will remain standing on the film; otherwise black spots would appear when developed. The plate is then quickly dried. All this is best done in the dark room with ruby light. In the dark room the bichromated plate is placed in the printing frame and then printed in daylight. The image will soon appear in a light-brown color on a light-yellow ground. The progress of printing can be controlled in the dark room with yellow light from the back of the plate in the beginning; further the plate is taken out of the frame and the image examined at leisure, in yellow light. As soon as the high lights begin to become visible, printing is finished. We print the second negative now, and continue till all negatives to be combined are printed. Then we have the complete positive image in a brown color before our eyes, and can still modify it, sunning down, faking and using all the tricks we know. When we believe the picture well finished the print is washed until the color of the plate turns to a blue-greenish hue. Then the plate is very well rinsed under the tap and dried in dark. The plate is then developed with the regular ferrous-oxalate developer in subdued daylight, well rinsed, and immersed for five minutes in a clearing bath of one per cent

solution of glacial acetic acid. The plate is then fixed in an acid fixing bath; fixing will require a very long time."—"The Amateur Photographer."

Another Color Method—The Omnicolor Plate

At a recent meeting of the Societe Francaise, M. J. Jougla exhibited some results obtained by the above one-plate process, and gave the following notes as to the procedure:

The plates are formed of a regular mosaic, or screen, obtained mechanically and composed of a ruled surface forming microscopic rectangles in blue-violet, green, and reddish orange, exactly juxtaposed. This screen is covered with a special transparent varnish, and then with a panchromatic emulsion.

The glass of the plate is placed in the dark slide towards the lens, so that the light may traverse the polychrome screen before acting on the emulsion.

A circular compensating screen, adjusted to the sensitiveness of the plates and cut from the special films supplied by the makers, should be placed between the lenses or fixed against the lens board by four pins. This filter, or one on thin glass, may also be placed in the dark slide, in front of the plate.

The exposure with a lens of large aperture is one-fifth to one-tenth of a second in sunshine. The plates are not sensitive enough for very rapid instantaneous work.

The manipulations in the dark room are restricted to three operations: 1.—After having placed the plate in the developer in total darkness, the dish is rocked for a certain time. It may then be covered and the light turned on if required, but it is absolutely essential that the plate should be developed in darkness, as with all other

panchromatic plates. 2. Then in the dark or in very feeble red light, the plate should be thoroughly washed and the negative image then destroyed by means of a bi-chromate bath with some strong acid added or preferably the special solution supplied by the makers. After about two minutes in this special bath the image will disappear abruptly, and, looking at it by the faint red light, a positive image will be seen by transmitted light.

The plate should then be well rinsed under the tap, and immersed for about a minute in a five-per-cent solution of sodium sulphite and again washed for a minute. It should then be replaced in the developer used for the primary development, placing the emulsion side down.

At this moment the dark-room lantern should be opened, so as to give white light, which must only strike the plate after passing through the colored filter; in this way the whole of the silver bromide which was not acted upon in the camera is reduced, and the positive image obtained. In order that the development may be even, it is advisable to lift the plate up and down, from time to time. After two minutes' development, the image may be examined by looking through it at some distance from the light. The positive will then be seen in its natural colors, and when the intensity is considered sufficient, development should be stopped.

All that is then required is to wash and fix the plate, as usual. The final washing requires no special precautions, but is done in the usual way, and may continue for hours without any ill effects.

The "Omnicolor" plates are coated with a film of emulsion sufficient to enable one to obtain very rich colors without intensification.

Drying is effected as usual, or the plates may be dried in spirit.—"The British Journal of Photography."

How to Improve Blue Prints

Sir:—Many readers doubtless find that if their negative is too dense or too thin, it is impossible to get a really good print on ferro-prussiate paper, the resulting definition being too poor. If, however, after the prints are taken out of the water they are immersed in a solution of bi-chromate of potash—about one ounce in

six ounces of water—the result will be vastly superior and all possible detail will be brought out. It is useless to leave the prints in the solution longer than five seconds as the change takes place immediately, and if the prints are left in longer there will be no further action. After immersion wash thoroughly for a few minutes under a tap and pin up to dry. Yours, etc., C. S. Truss.—"The Amateur Photographer" (England).

Simplified Factorial Development

I think beginners would take more kindly to factorial development, writes Mr. P. McGregor in "The Photographic News," if they could get it simplified, so that they could divide the number of seconds of first appearance by a factor which would give them the result at once, without having, as in the old method, to multiply by the factor and divide by sixty. My new system, which I have been using for some time, is very simple. There is no calculation required; you merely divide the number of seconds of first appearance by the factor, and you have your answer in minutes required for total development. I give some of the developing agents below, with new and old factors:

New Factor.	Old Factor.
12. Adurol	5
6. Kachin	10
6. Pyrocatechine.	10
12. Hydroquinone	5
2. Metol.	30
6. Ortol.	10
10. Imogen sulphite	6
5. Diogen	12
3. Edinol	20
12. Pyro	5
Divide by 3 and multiply by 2.	
Rodinal.	40

Constructing a Focusing Scale

J. H. Wigner, Ph. D., writing in "Photography," London, says:

"How many hand-camera users, when wishing to photograph moderately-close objects, have carefully measured the distance from the camera to the subject, have set their scale at the proper figure, and on developing the plate have been annoyed to find their principal subject seriously out of focus? I do not mean to assert that all makers' scales are faulty, but I know as

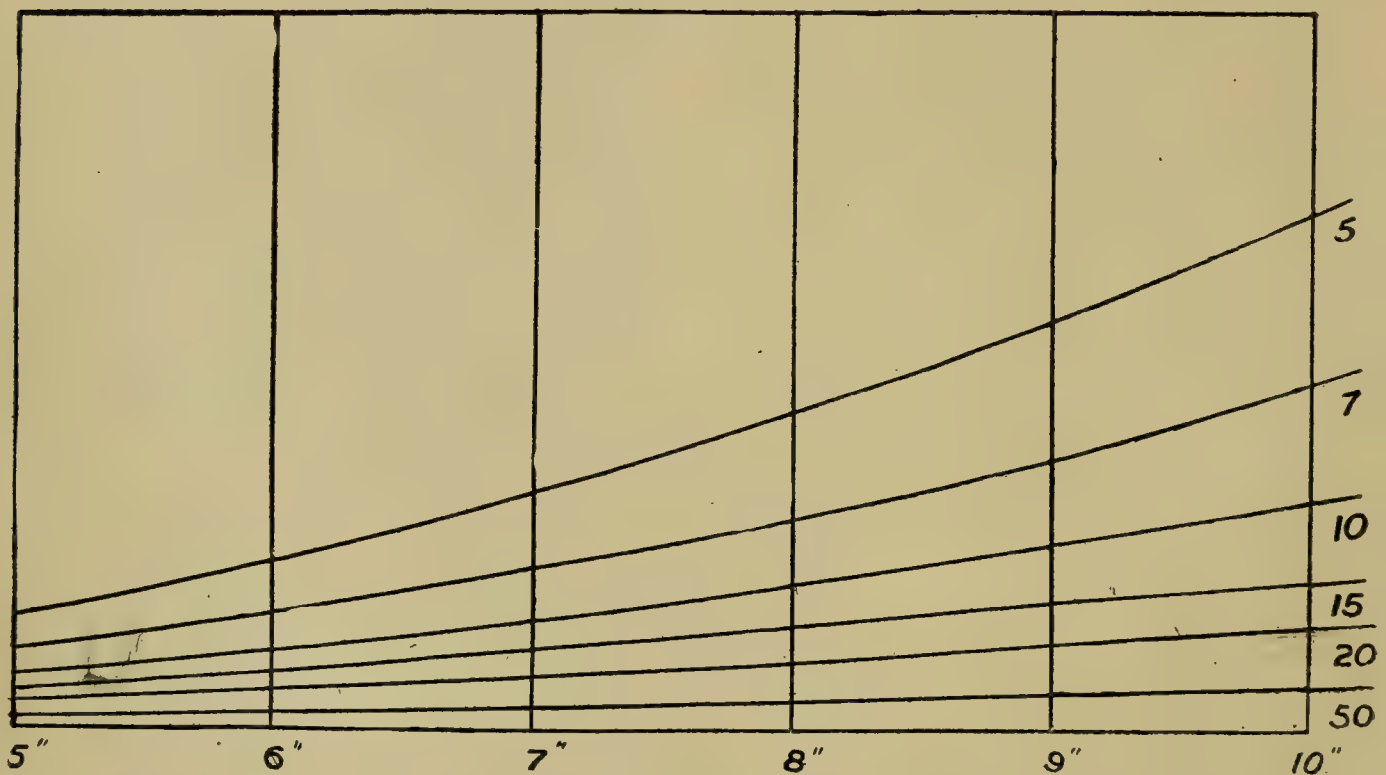
a fact that many cameras fitted with quite good lenses are provided with scales which are widely inaccurate.

"For my own convenience, I recently constructed the following diagram, by means of which it is possible, within a minute or so, to construct a focussing scale for a lens of any focus between five and ten inches. Users of hand cameras will do well to check the scales on their cameras, and for those who possess stand cameras without a scale, it affords a simple means of constructing this useful adjunct.

"To use the diagram it is necessary, first,

are transferred onto a piece of hard wood, celluloid, or what-not, and the scale is completed. In fixing it into place any one of the distances may be adjusted by careful focussing at full aperture, and if the focal length has been accurately measured, the others will all be found correct.

"The scale is based upon the following table of conjugate foci, which was worked out specially for the purpose, and contains figures for other distances which could not well be inserted in the diagram without overcrowding. It may be of use to those who wish for a somewhat fuller scale."



EQUIVALENT FOCUS OF THE LENS

To use this diagram a mark is made on the bottom line corresponding to the focus of the lens and an upright line is drawn through that mark. The places where the curves cut the upright line indicate the relative positions on the scale for the different distances in feet as shown at left.

to determine the focal length of the lens. In the case of expensive lenses, this is usually given very accurately by the makers, but, in any case, it is a simple matter to measure it for one's self. Having found the focal length, the corresponding place on the bottom line of the diagram above is marked, a perpendicular is drawn and the points at which the latter cuts the several curves give the various extensions required for distances of fifty feet, twenty feet, fifteen feet, ten feet, seven feet and five feet, respectively, the base line representing the infinity mark. These distances

Equivalent Focus of Lens

Distance	in ft.	5 in.	6 in.	7 in.	8 in.	10 in.
100		5.021	6.030	7.041	8.053	10.083
50		5.042	6.060	7.083	8.108	10.170
40		5.053	6.076	7.103	8.135	10.212
30		5.070	6.083	7.139	8.182	10.286
25		5.085	6.122	7.167	8.219	10.345
20		5.106	6.153	7.210	8.275	10.434
15		5.143	6.207	7.283	8.372	10.589
10		5.217	6.316	7.433	8.571	10.911
7		5.316	6.461	7.636	8.842	11.350
5		5.455	6.666	7.924	9.231	12.000

The Amateur and His Troubles

By FAYETTE J. CLUTE

Carbons on Ivory

A correspondent in Washington wishes to make carbon prints on ivory to be colored as miniatures. He has tried the process, but is troubled with bichromate stains. His difficulty is due to his employing the single transfer process. The right method is to develop the pictures on flexible support and allow them to dry. A solution of gelatine, one ounce to the pint of water, should be prepared, and twelve grains of chrome alum, dissolved in a like amount of water, added. The solution must then be warmed, and both the ivory and the dry carbon print immersed therein, brought into contact, and a squeegee applied. After drying, the support is to be stripped off.

Curling Films

One of our correspondents has fallen heir to some very interesting films made some years ago by a newspaper correspondent, but he finds it very hard to print from them, as they are of the old curling variety, and have been kept closely rolled into bunches of a dozen or more. All that it is necessary for him to do is to soak them in water containing one ounce of glycerine to the pint, until flaccid, and then pin them up to dry. After drying, they should be placed under pressure, and no further trouble need be expected.

The Rapid Sensitizing of Carbon Tissue

A correspondent in the East wants some information concerning a rapid method of sensitizing carbon tissue. Marton's Carbon Studio, Bloomington, Illinois, supplies a solution for rapid sensitizing, and possibly the method of A. H. Hall, a British worker, will suit his purpose. Writing in "Photography," he describes his way of working somewhat as follows: The tissue is pinned down

to a board or large mount, a small pool of a solution of ammonium or potassium bichromate, in connection with acetone, is poured into the center and evenly and quickly spread over the entire surface with a wide camel's-hair brush. The application of the brush is continued, first one way across and then the other, until there is an inclination to stick on the part of the coating. Thus sensitized, the drying of the tissue will require but about twenty minutes. This plan insures the complete solubility of the tissue and is more economical and convenient than the ordinary method. In the preparation of the sensitizing solution, hot water should be used, and when cold, filtration resorted to to remove any undissolved particles. To each ounce of the solution an ounce and a half of pure acetone is to be added. This addition will cause a few crystals to be thrown down in the case of the potassium bichromate, but these can be ignored.

Keeping Sensitized Carbon Tissue

Now that one of our largest manufacturers will shortly take up the production of carbon tissue, it might be well to explain that the general impression concerning the poor keeping quality of the sensitized tissue is in a great measure fallacious. Sensitized carbon tissue under the same conditions of protection from moisture will keep as well as platinotype paper. In other words, substituting a flat container for the usual platinotype tube and equipping it with a compartment utilized for chloride of calcium, no difficulty should be experienced in securing good results on carbon tissue several months after it has been sensitized. The container should be so arranged that the cut sheets are under slight pressure to insure their being kept as flat as possible. Furthermore, tissue that has been printed and then placed in one of these cases, will not acquire the

over-printed condition so objectionable when the tissue is not developed at once but is stored in the ordinary way without other precaution than against light. Protected from dampness as we are so accustomed to keep our platinotype paper, sensitized carbon tissue need give us no greater anxiety; in fact, it should keep even better than ordinary printing-out paper. I believe that several of the foreign manufacturers supply these cases or supply their tissue so protected when the sensitized product is ordered.

Preserving Sulphite Solutions

A correspondent, E. J. Warren of Chicago, writes concerning our recent mention of the lack of stability in sodium sulphite solutions, to say that he has employed a method of preserving such solutions suggested to him by a demonstrator, with the most gratifying results. His sodium sulphite is a twenty per cent solution, to every thirty-two ounces of which he adds an ounce of the glycerine. The solution is used for making up the popular amidol developer for gas light papers, and the only effect of the glycerine, if effect it may have, is to slightly retard the development through a slight decrease of penetration which it causes. Solutions of sulphite made up with this addition of glycerine will keep with but slight deterioration for eight or ten months.

Swing Front or Swing Back

A correspondent writes to ask if there is any advantage in a swing front, any adjustment that can be obtained with it that is not obtainable by using the swing back. We can best explain this matter by supposing a case, say a view in which the near foreground comes at the top of the ground glass and the distance in the view comes at or below the center. To secure sharp focus in both it will be necessary to stop down or else, by bringing the top of the focusing screen backwards by means of the swing back, bring the two points in focus. Doing this last permits of the use of a large stop but introduces an element of distortion that would be very offensive in an architectural subject but much less so in the case of a landscape, although none the less present. Using the swing front, by pointing the lens at the near foreground, the rays forming its image of that foreground will be direct ones and those

forming the image of the distance will be oblique ones. The two images will, for that reason, form at different distances to those with the lens in the normal position. The one that before necessitated the near position of the ground glass will be located at a greater distance and the image that necessitated the swinging backward of the ground glass will be formed nearer. For this reason the same large stop may be used as when the swing back is brought into play, without the introduction of the distortion made necessary by its use.

Sodium Sulphite Solutions

In a recent note in this department I called attention to the unstable qualities of sodium sulphite solutions. One of my correspondents, Mr. Foster, of Fresno, California, writes to advise that he, acting upon a hint given in the "Amateur Photographer," London, last February, finds that the addition of glycerine to the solution causes it to keep for the time which has since elapsed without the least deterioration. The writer who advised its use claims that a solution so prepared will easily keep for six or eight months. Mr. Foster makes up a twenty-five per cent solution of the sulphite and adds thirty minims of glycerine to every ounce of sodium crystals used. The glycerine in no way interferes with the action of any of the other chemicals entering into the mixed developer, and the small amount used can have only the slightest, if any, retarding effect upon the action of the developer in use. Using this solution with amidol in a dry form, it would seem that the only objection to this excellent developer for gaslight papers had been removed.

Composition for Frames

In answer to an inquiry: The composition used by frame makers is made by boiling seven pounds of good glue in seven and one-half pints of water, to which is added three pounds of pale resin melted in three pints of raw linseed oil. When well boiled the mixture is allowed to simmer for half an hour and then mixed with sifted whiting enough to give the consistency of dough. In this condition it is ready to be moulded into the desired forms.

Club Notes

California Camera Club

Friday evening, July 26th, the club held its two-hundredth monthly illustrated entertainment at Christian Science Hall. The program was a particularly enjoyable one, and a large attendance displayed such appreciation that the president, Albert Le Breton, was emboldened to deliver several of his selections of original verses, illustrated by lantern slides. The slides were very fine. The August illustrated lecture was delivered by Mr. Frederick W. Prince, before an immense audience. The subject was "The Grand Canyon of the Colorado," and was illustrated with beautifully-colored slides, panoramic views, and a number of moving pictures. The lecture was keenly enjoyed. The next monthly lecture will be devoted to "The Camera Club in Yosemite," illustrated by a selection of the many fine pictures secured during the two recent outings of the club to that paradise of the photographer. Eighty members went to the Yosemite Valley on the first, or June, outing, sixty-two on the second, a month later. The next outing will probably be given to Lake Tahoe, taking advantage of Admission Day, which falls on Monday, September 9th. By leaving Friday evening, the 6th, and returning Tuesday morning, the 10th, an excellent outing can be enjoyed.

The Demonstration Committee is arranging classes in lantern-slide work and bromide enlarging, for the benefit of the many new members who have joined since the early Spring, some eighty or ninety in number. Names are being registered with the assistant secretary almost daily, for one or both of the classes. Other lines of work will be taken up in order, or the idea enlarged upon as may be found desirable.

The Print Committee has not been idle, as witnessed by the very fine exhibit of the work of Dr. Arnold Genthe, which adorned the walls of the main room and the director's room above, during July.

The present remarkable exhibition is composed of some ninety large prints, all the work of Dr. Gustav Eisen. These prints are from negatives recently made in Europe and North Africa, and the collection is attracting great interest on account of the uniform high quality of the work.

Wisconsin Camera Club Program for August

Aug. 6th—Opening of the First Quarterly Contest. Series II and award of honors. Sunday, Aug. 18th—Club run to Racine. Cars leave Public Service Building. Fare, sixty cents, round trip. Executive meeting, Aug. 6th, 7:30 p. m. Owing to the heated term and the general vacation period, no special program has been arranged for August, but it is hoped that each Tuesday evening all who can and feel so disposed, will call at the Club rooms and have an informal social evening.

An Open Letter

Wilksburg, Pa., August 10th, 1907.

Mr. Fayette J. Clute,
Editor "Camera Craft,"
San Francisco, Cal.

My Dear Sir:

I have your favor of the 1st inst., handed me by Mr. Strayer.

The Carnegie Institute was given to the city of Pittsburg by Andrew Carnegie in 1895. It has lately been enlarged to five times its original size, and is now the largest and finest art institute in America. Until the past year, its galleries have been open to photography; some of the exhibitions held there being one by the Photo-Secession, the first two American Salons, the Curtis Indian collection, and a number of local exhibitions. Since the withdrawal of the society, which is a component part of the Institute, from the American Federation of Photographic Societies, no photographs have been hung in the galleries. The society referred to has the use of a lecture room, where it holds meetings and shows lantern slides, but has been unable

to secure the galleries for the exhibition of its prints. This state of affairs was brought about by the obstructive tactics it adopted to prevent the hanging of Federation exhibitions. But, laying aside the cause, the result is that the failure of the Institute to permit the hanging of photographs in the galleries, amounts to a withdrawal of recognition of photography as a medium of artistic expression of sufficient importance to be given space upon the walls.

The Pen, Pencil and Camera Club claims that photography has gained this recognition, not only in Pittsburg, but the world over, by a struggle of many years' duration. It has, from the time of its organization a little more than a year ago, stood for "the open door," and its officers have argued, publicly and in private conversation, for the admission of all photographic exhibitions of merit to the galleries. It has no personal fight on hand. It does not claim priority over any other club or exhibitions. It merely demands, and it will continue to demand, recognition of photography by the Institute.

Respectfully,

R. L. SLEETH, Jr.,

Secy. Pen, Pencil and Camera Club.

Worcester Art Museum's Fourth Annual Exhibition of Photographs

The Worcester Art Museum, Worcester, Massachusetts, announces its 1907, or Fourth Annual Exhibition of Photographs, to open November 1st and close December 1st, 1907. As heretofore, the exhibition will consist of photographs, and only work which gives evidence of artistic feeling will be accepted. The closing date is October 21st, and all pictures should be in the hands of John G. Heywood, manager Worcester Art Museum, before that date. Entry blanks must reach the Museum before October 18th. These exhibitions have ranked very high in the three previous years in which they have been held, and as the best workers of the country are coming to appreciate the honor of having their work accepted by the jury of admission, and hung in this exhibition, each year finds an improvement in the work displayed. Mr. Heywood will send prospectuses and blanks on request, and

artistic workers should not fail to avail themselves of the opportunity of showing their work at this exhibition.

Exhibition of Photography

"Arrangements have been made," says the "Buffalo Express," of July 29, "to hold at the Albright Art Gallery sometime in September, an exhibition to exemplify the fact that photography rightly should be classed as an art when there is an artist behind the camera. The photographs to be shown will represent the small society known as 'The Photo-Pictorialists of Buffalo,' the membership of which includes Oscar C. Anthony, Charles E. Booz, William A. Hatch, G. Edwin Keller, S. S. Lloyd, W. H. Porterfield, John M. Schreck and Edward B. Sides. The exhibit will consist of about sixty works, and will probably be installed in Gallery No. 12.

"Not long ago an exhibit of the works of these men was held at the Art Institute of Chicago, where it attracted great attention. The exhibition here in Buffalo will undoubtedly prove of interest to many visitors."

The Racine Camera Club

Five members of the Wisconsin Camera Club—B. F. Langland, president; with Messrs. Doerflinger, Goodwin, Roloff and Horning, other officers of the Club, visited Racine July 18th, and were present at the organization of the new Racine Camera Club. The meeting was held at Wright's studio, 819 Park Avenue. Thirty-four members were enrolled, and as these charter members display great enthusiasm and additional members are constantly signifying their intention of joining, the new club is destined to become a model organization for a city the size of Racine. The club will be an auxiliary branch of the Wisconsin Camera Club, of Milwaukee, and will share with it its privileges in the American Federation. An interesting course of demonstrations has been arranged, and the outings and excursions that have made the parent society so popular, will be made an important feature of the new organization. Officers have not as yet been elected, but will be chosen at the next meeting. George E. Rogers, care Postoffice, Racine, Wisconsin, is chairman of the organization committee, and will be pleased to meet prospective members, or answer communications concerning the club.

Notes and Comment



Exposition Notes

The State of Washington has appropriated \$1,000,000 for the Alaska-Yukon-Pacific Exposition. This will be the next world's fair, and will open at Seattle June 1, and continue till October 15, 1909. The Administration Building is now under construction, and will be completed by the middle of August.

Seattle, where the Alaska-Yukon-Pacific Exposition will be held in 1909, now has a population of 241,000. At the rate at which the city is now growing, it will have fully 350,000 by 1909. Mt. Rainier, the highest peak in the United States proper, is in plain view from the grounds of the Alaska-Yukon-Pacific Exposition. Mt. Baker, another formidable snow-clad peak, may also be seen from the grounds. These grounds occupy two hundred and fifty acres of the campus of the University of Washington. Ground was broken for the Alaska-Yukon-Pacific Exposition before a crowd of fifteen thousand persons, on June 1.

Miss Adelaide Hanscom, a Seattle artist, won the five hundred dollar prize offered for the official emblem of the Alaska-Yukon-Pacific Exposition. The design, shown above, is artistic and fully typifies the purpose of the Exposition.

As all old prospectors will tell, and it is expected that those most famous in the history of Alaska and Yukon will be present at the Alaska-Yukon-Pacific Exposition, which will be held in Seattle from June 1st to October 15th, 1909, the three months of

almost continuous sunlight each Summer in the Northland has an odd effect on most newcomers. As a matter of fact, a man accustomed to seven hours' sleep each night, finds, upon going to Alaska, that he cannot easily adjust himself to the altered conditions. Most people get sleepy when the dark comes, and do not think of sleeping in daylight. As a result, men go for day after day, when first in the North, with little inclination to sleep. A man has to train himself in Alaska and Yukon to go to bed with the sun shining high in the sky. Those who need darkness in order to slumber comfortably, have to pin blankets over the windows and go to a great deal of extra trouble to produce it. It is said in the early days that the chickens that were first brought to the North in Summer time went crazy for want of rest. They waited and waited for the sun to set, in order to know when to go to roost, and, as it continued to shine, the fowls went without sleep until they were exhausted. This story is hardly verified, but it is true that the continuous daylight has a very odd effect on men and animals alike, and it takes a few weeks to get accustomed to it.

Enlarged Premises for Ozobrome, Limited

The Ozotype Company will hereafter be known as Ozobrome, Limited, with offices and greatly enlarged factory at 122 Allcroft Road, Kentishtown, London, N. W., England. The heavy demand for Ozobrome material in England and the Colonies soon made the facilities of the old factories at 96 Prince of Wales Road and 1 Weedington Road, quite inadequate. The booklets which our Department C. is still sending out bear the old address, but as the Eastman Kodak Company, as sole licensees for the Ozobrome patent in this country, will have the material on the market long before this reaches our readers, the change of address of the Great Britain manufacturers will interest only our foreign readers.

Points in Reference to the Simplimeter

The kind of plate used does not have to be taken into consideration each time an exposure is to be made. No time is required in arriving at an exposure after the user has become familiar with it. A glance tells the whole story. By its use the user is taught to calculate exposures because the method is so simple and methodical. Every exposure given in the tables can be found on the shutter of the camera. There is no possibility of having to go through a long operation to determine an exposure, only to find the result to be three-one-hundredths of a second. This would make it necessary to guess at the adjustment of the shutter, which the operator might do without any kind of an exposure guide. The camera user can put a mark in the simplimeter corresponding to the month and the plate he is using, calculate the weather and wind before he reaches the field, and then make correct exposures all day by simply shifting his stop pointer each hour. No calculating need be done after leaving home.

The variation table is easily memorized. A number of the inventor's acquaintances who have aided him in testing this meter and its practicability before he placed it on the market, have stated that the variation table will be unconsciously memorized in a few days, and that they never have occasion to refer to it. The simplimeter has been in use by a large number of workers for two years. It was last year put into print simply to satisfy the demand. As the maker had not considered his experiments as entirely completed until late in the season, it was not advertised until now. The inventor advises that since the publication of the book over two thousand copies have been sold, one at a time, the orders having come direct to him at his home address. During this time no advertising of any kind was issued, no advertisement has appeared in any publication, and it has not been in the hands of any dealer. He writes: "I am frank to say this gratifying demand was pleasing to me, yet caused me some apprehension as well, because my experiments had not been completed, and I feared I might discover some error at any time. Such has not been the case, however, and no harm

has been done by allowing these early tables to be sent out. It seemed that every camera owner who has seen them has ordered one or two copies." One will note that he begins with the time, or length of exposure. He has always contended that the stop had the least bearing on the result; that any stop with a fair lens would give a good picture. Therefore, the length of exposure was of first importance. He believes you will agree with him, that if the exposure is made quick enough to overcome motion of whatever object is being photographed, and the stop is adjusted correctly, that a good picture is usually obtained. That is the reason the inventor has worked from the other end.

Lloyd's New Catalogue

Andrew J. Lloyd Company has sent us one of its handsome new Photographic Encyclopedias, a book of nearly two hundred pages, with illustrations running into the hundreds. Many tables and formulæ are given, in addition to a complete catalogue of all the new and desirable photographic goods which the firm carries. The address of the firm is 319 Washington Street, Boston, and it will be pleased to send a copy to those interested enough to advise it of the fact.

Webster's International Dictionary

The well known publishers, G. & C. Merriam Co., Springfield, Mass., are sending out an interesting booklet, "The Story of a Book." We would advise all our readers to write for a copy—it is sent free—and inform themselves concerning the merits of the Webster's International Dictionary, which the firm publishes. It is the standard of the government printing office, the Federal and State courts, and the like, and is universally recommended by the leading educators throughout the country. Several editions are offered, ranging from the massive volume of two thousand three hundred and eighty pages to the modest book that is so convenient for the small writing desk or school. The "International" is a dictionary that should be examined by all intending purchasers, particularly in these days of cheap reprints of old editions, for the reason that a poor or incomplete diction-

ary is a source of annoyance and dissatisfaction, out of all proportion to its but slightly lower cost. We have used an "International" for a number of years, a new one supplying the loss made by the fire, and we can recommend this edition to those who want an up-to-date dictionary that will prove a convenience and a source of satisfaction.

Order the Annuals

George Murphy, Inc., 57 East Ninth Street, New York, announce that, as heretofore, they will be trade distributing agents for the "American Annual of Photography for 1908" and the "British Journal Almanac for 1908." The price of the first will be seventy-five cents and one dollar and twenty-five cents, respectively, for the paper and cloth covers. We were not advised further than that postage would be extra, but we think it was eighteen cents for the first, and twenty-four cents for the last, on former issues. The "British Journal Almanac" will be fifty cents for the paper covers, and one dollar for the cloth binding. As it is larger, the postage will be about double. Announcement will be made later, and particulars will be given in the firm's advertisement in later issues. We make this announcement in order that our readers may place their orders with their dealer.

Amateur Photographers in Convention

The eighteenth annual meeting of the New England Photographic Exchange was held July 26th, at the United States Hotel, Boston. Renewed interest was manifest in the affairs of the Exchange, and indicates better and more extended work the coming season. Fred T. Irwin, the Secretary for the past two years, was present, and called the meeting to order. L. Joe Chatterton, of New Haven, was elected chairman. The clubs represented were the New Haven, New Britain, Providence, Albany, Manchester Institute of Arts & Sciences, and Medford.

Rules were adopted governing the Exchange the coming year, and The New Britain Camera Club given the management of its affairs. The delegates spent Saturday, July 27th, photographing the historical and picturesque points of interest in and about Boston. A unanimous vote of

thanks was tendered Mr. Irwin for his untiring efforts in behalf of the Exchange during the past two years.

Taunton Fair Photographic Exhibition

There will be an exhibition of photographs in connection with the Taunton, Massachusetts, Fair, September 17, 18, 19 and 20, 1907. This exhibition is held regularly, and, having become quite a feature in that section, we wish to give it wider publicity with the hope that some of our Pacific Coast workers may be represented. All amateurs are invited to participate, and suitable prizes will be awarded. Prints must be mounted, but need not be framed. There will, as heretofore, be four classes: Portrait, Genre, Landscape and General. Further information may be had by applying to John Truex, 14 East Britainia Street, Taunton, Massachusetts, to whom pictures should be sent to arrive a few days before the opening of the fair.

Specimen Sets of "Tabloid" Photographic Chemicals

In order that photographers may be enabled to make a practical test of "Tabloid" photographic chemicals and familiarize themselves with the convenience and reliability of these products, Burroughs, Wellcome & Company are now issuing specimen sets of "Tabloid" photographic chemicals, to retail at fifteen and thirty cents. Further particulars are given in the booklet which accompanies each set.

"Photo-Era" Photographic Competition

In our advertising pages will be found the announcement of the Fifth Annual Competition inaugurated by our handsome contemporary, "Photo-Era." Mr. French, the editor, advises that he is now the publisher and proprietor, and intended competitors may be assured that the details of this, their fifth competition, will be carried out on the lines of high principles, both business and otherwise. We believe Mr. French will treat all who may enter this competition fairly and in a thoroughly conscientious manner. There will be selected a jury of award concerning whose decision no question or doubt can be raised.

An Earnest Worker Passes Away

We regret to announce that William Robinson Cabot passed away at his home at Beverly Farms, August 2nd, last. Mr. Cabot was elected a member of the Boston Camera Club, February 3rd, 1902, and was made its president, January 4th, 1904. He was loved and respected by all who knew him, and his popularity with the members of the Boston Camera Club was as great as it was general. A sincere worker for the advancement of photography, his help will be missed by the club and the photographic enthusiasts who availed themselves of his assistance, always so willingly given.

An Announcement

Binghamton, N. Y., Aug. 15, 1907.

The awards at the recent Dayton National Convention of Photographers and the advent of Professional Cyko, have convinced us that the progressive photographer will no longer use collodion printing-out papers, and we have, therefore, decided to discontinue the manufacture and sale of Monarch collodion paper, on and after September 1st, proximo.

We also beg to state that the new edition of the "Cyko Manual," which contains full information regarding developing paper, will be ready for distribution on or about September 15, 1907. We will be pleased to mail you a copy, on request.

THE ANTHONY & SCOVILL CO.

An Announcement

The Schooley Manufacturing Company, successors to Lange, Schooley & Company, photographic cards, folders and card board, make the following announcement to the photographic trade:

"We desire to announce to the trade in general that our new factory is in full operation. We are now ready to receive orders from our old customers and friends; our new line of cards and folders being the most complete ever shown on this Coast. We sell direct to the consumer, thereby saving you the middle man's profit. Photographers will please send us their correct addresses, that we may put them on our mailing list, and insure their receiving our new samples from time to

time. By acknowledging this announcement, we will know if we have your correct address.

"Thanking you in advance for any orders you may entrust to us, we are

"Very truly yours,

"THE SCHOOLEY MFG. CO.

"San Francisco, Cal., August 15th, 1907."

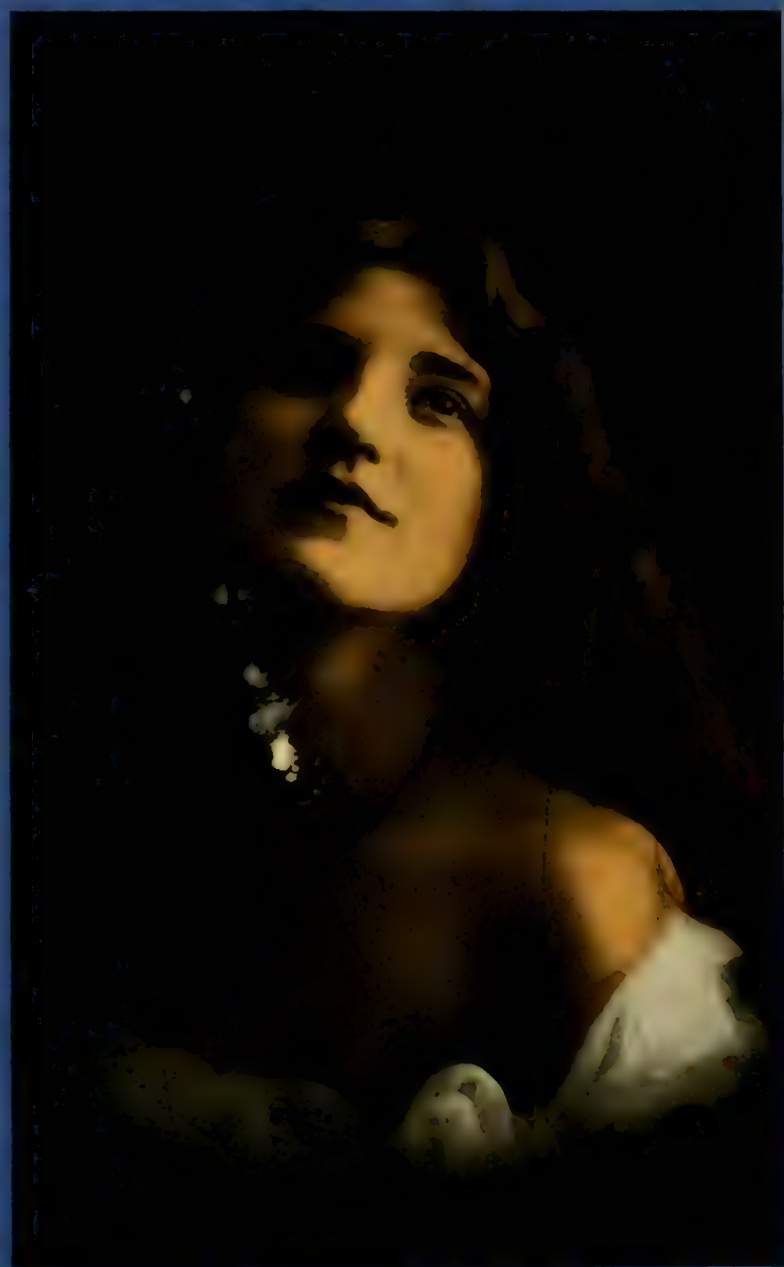
A Spotting Convenience

The Northern Photo Supply Company, of Minneapolis, Minnesota, is placing upon the market two very excellent utilities, the Liberty Carbon Spotting Pencil and the Liberty Negative Marking Pencil. Every photographer knows how tedious is the work of spotting with a brush, and those who have tried to use a common lead pencil on their gaslight and other bromide prints, are aware of the objectionable shine which makes such a tool almost useless. Spotting done with this new Liberty pencil is invisible, has no shine, and will not rub off. For working in detail, it is entirely satisfactory, and can be used on any kind of paper, except the very glossy. The other pencil for negative work is a valuable tool for retouching, the working in of detail, the holding back of shadows, strengthening of high lights, and the bringing out of relief. The pencil is used directly on the glass side of the negative, and does its work without leaving a smear or showing grit. We have tried both, and would recommend them to our readers. The price is fifteen cents each. The firm will, no doubt, be pleased to supply them by mail, at that price.

Three Excellent Booklets

Burke & James, 118-132 West Jackson Boulevard, Chicago, Illinois, are sending out three little, unpretentious booklets that contain a wealth of information of great interest to every camera user. They will, no doubt, be glad to mail one or all of them on request, and we would advise that a request be made. One treats of the factorial system of development; another on the functions of a perfect color filter, and the third on tank development. The information given is practical and to the point. We have mentioned these booklets before, but there can be no harm in again calling attention to their value.

CAMERA CRAFT



San Francisco, California

CYKO MANUAL



Send for this book and learn to use the best
paper in the right way. Beautiful art prints
from your negatives will be the reward.

THE ANTHONY & SCOVILL COMPANY
BINGHAMTON, NEW YORK

PLEASE MENTION CAMERA CRAFT IN CORRESPONDING WITH ADVERTISERS



DAINTY DOROTHEA
By KATHERINE BINGHAM

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. XIV.

SAN FRANCISCO, CALIFORNIA, OCTOBER, 1907.

No. 10

The Ethics of the Profession

By W. G. EMERY

President's Address, Seventh Annual Convention,
P. A. P. N. W.

Ladies and Gentlemen, Members of the P. A. P. N. W.: Following the precedent set by Ex-President Savannah in his address to the convention last year, I shall not attempt to give you a lecture upon any of the technical processes of our every-day work, but will briefly present for your consideration some of the questions which deal with us as a profession and as an association.

In the last quarter of a century photography has grown at a rapid rate in all branches. Thirty years ago a camera was a rarity and the enthusiast who carried one carried also a mountain of traps and accessories. Last year the United States alone manufactured three hundred and fifty thousand cameras of different kinds, and the photographic business totaled the respectable sum of twenty-three millions of dollars. Such figures do not even hint at the true extent of the work accomplished in the various fields of the profession. If one were to tell the men engaged in other pursuits that photography has a more pervading influence on their business life than any other one discovery of which we have any record, they would probably be very skeptical. Yet such is an undisputed fact. In the commercial world photography has become almost a necessity to the publishers, and in the line of illustrated journalism it has grown to proportions beyond comprehension. Photography now brings to every country, by means of our newspapers and magazines, true pictures of all others, and in science as well as in art it is a gift of an importance that is incalculable.

Portrait photography, in portraying the forms and faces of loved ones, in recalling and preserving most sacred memories which would otherwise be lost, and in keeping alive and nourishing affections which the separation of land or sea can not sunder, in the homes of the rich and the poor alike, performs a service that makes it truly one of the most subtle blessings known to man. Ours is certainly an important and noble profession and we ought to be proud of any part we may take in further ennobling it. We can all help in some way with our talents, our money, or by our presence here at these helpful meetings.

The day is now here when the line is sharply drawn, dividing the progressive, earnest and deserving photographer from the other fellow. By your

presence here I take it for granted that you are on the right side of the line and that you are all willing to put your shoulders to the wheel and assist to still further the work already done. One has only to compare the work on exhibition here today with that of the first convention seven years ago to be impressed with the great importance of these annual meetings. We find here each year the leaders in our profession in the Pacific Northwest, all large-hearted, whole-souled men, ever ready to lend a helping hand to every eager and willing worker, and every photographer in this territory should lend his aid and support to the association by enrolling under its banner and taking an active part in the meetings, thereby assisting in establishing that good-fellowship and fraternal feeling that is the keystone of all work for the elevation of any profession. In helping us by your presence here you can not fail to benefit yourselves, for during the next three days you will have the opportunity, not only to study the many excellent samples of photography on display, but to listen to an interesting and instructive series of talks from those mentioned on our programme, who know by dear experience whereof they speak, and in addition you may see the practical demonstrations in the school of photography by men who are known as experts in each particular line.

There is nothing like "get-togetherism" to cure narrow-minded professional jealousy. You may well be surprised to learn here that your competitor is a real good fellow, because you never before have taken the time to get acquainted with him. In a conversation today with a leading photographer of this city, I asked him as to the location of the studio of a friend of mine. "Why," said he, "I did not know a man of that name was in the business here." Both of these men are broad, liberal minded men and would be benefited and helped by one another's friendship. To you city photographers especially I would say, do not neglect the opportunities afforded by these conventions for getting acquainted with your competitor, not as a competitor, but as a man interested in the elevation of your profession and the upbuilding of your community. In the country it is different. Every photographer knows every other, knows all about his business, his virtues and his vices and all his family troubles. I attended a church social the other evening and heard a story along this line worth repeating.

An old farmer came to the city to visit his nephew John, a well-to-do and leading business man of the place. John got up a couple of hours ahead of time the next morning so as to conform to the customs of the old man at home on the farm, but he found him already up and exploring the premises. "Say, John," he asked as soon as he saw him, "that is a fine property across the fence; who owns it and who lives there?" "I am sure I have no idea; I have never met them." "How long have they lived there?" "Ever since I have lived here—about four years," said John. "What! And you don't even know their names. Well, that beats me," said the uncle. While John was attending to something in the house the old man disappeared, returning just as the family was sitting down to breakfast; and as he sat down he said: "Those people's name is Brown. He is a merchant, is thirty-six years old, has been married twice; his mother-in-law lives with him; he has three



By LIBBY STUDIO, SPOKANE, WASH.
Salon Award, 7th Annual Convention
P. A. of P. N. W.

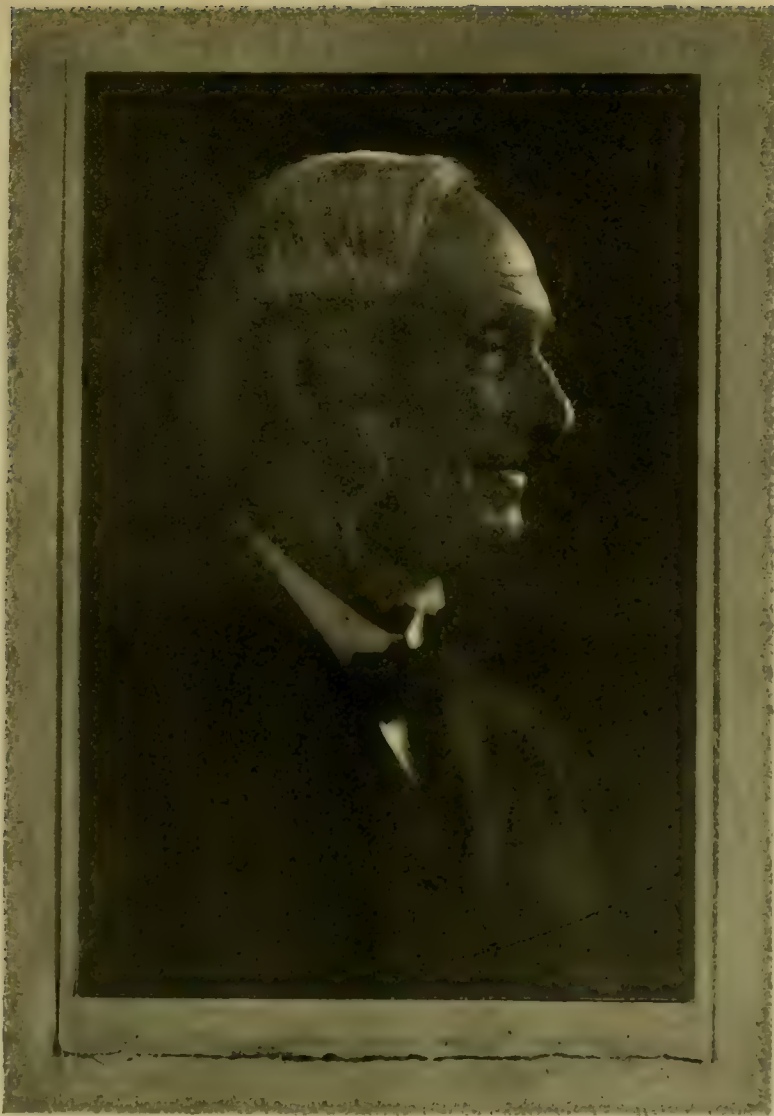
children, two by his first wife and one by his second; he is buying his house on the installment plan, has a horse and buggy, and his cow had a heifer calf this morning."

It is but a step from this fraternal "get-togetherism" to "fraternal co-operation," which along the other lines of industry has proved to be the very best business policy. Competition is never injured by co-operation. On the contrary, friendly co-operation, national, State and local conferences, have in the last few years done more to exalt photography in the eyes of the public and to increase our own efficiency and business success than all other agencies combined. The discussion of new methods, new inventions and successful experiment has stimulated the whole profession and each one in his own way has done better work. The free interchange of ideas at these annual meetings has encouraged originality and no one injures or impoverishes himself by offering suggestions for the benefit of his fellow photographers. Not only in the art of photography but in a business way co-operation is a necessity. Better commercial method should be suggested and fully discussed and adopted at our conventions. It seems to me that the time is now at hand when the P. A. P. N. W. should go on record as adopting certain business and fraternal methods, to which all of its members should subscribe and as closely as possible live up to. Under this head will come such matters as a uniform method of deposit at time of sitting; charges for duplicate work, and shall such charge be the same or less than original price; re-sittings and rules to govern same; a uniform rate for developing and finishing amateur work (and along this line I would like an expression from the members as to the competition we are encountering from stock houses). These are questions I am going to leave to you for discussion and for action upon, and hope for a hearty response from all during these sessions.

One other matter which I consider the most important of all and which I shall more thoroughly discuss, is a rigid observance of the ethics of our profession and the establishment of a code, which we as members should make it a matter of honor to conform to. It is not necessary for me to dwell upon morality and correct deportment under the skylight, as common sense tells us all what should and what should not be done along this line. I will only say that we must not lose sight of the fact that the personality of those who come into contact with the studio customers has everything to do with the esteem and respect of the public for our profession.

One of the most common breaches of the code of ethics to which we should conform is the oftentimes woeful lack and appreciation of that professional courtesy which we note in our intercourse with other professions. Some of us may think that in the hustle of sharp competition that any and all methods are excusable, but it is a truth, an axiomatic truth, that extreme unprofessional methods sooner or later react against those who practice them. They warp and distort our personality until we lose the respect of all persons of refinement and make us contemptible in the eyes of our patrons, our help, our families and eventually will make us so measly and mean that we will hate ourselves.

Let us also learn to put a curb on our tongues. Nobody ever yet built



By MOON & WILLS, SEATTLE
Salon Award, 7th Annual Convention,
P. A. of P. N. W.



By O. W. PAUTZKE, ELLENSBURG,
WASHINGTON
Certificate of Merit, 7th Annual
Convention P. A. of P. N. W.

up an enviable professional reputation by belittling that of his competitor. When we counsel a doctor, lawyer, dentist, or any other representative professional man, we rarely ever hear any disparaging word spoken by him of his fellows. He is courteous, always willing to proffer assistance or help when called upon and rarely indeed does he criticise or comment upon their professional or personal standing. If anything at all is said it is in commendation rather than otherwise. These men of other professions will not even take your case in hand unless of vital importance, and then only for the time being, if some other member of their profession has the matter in charge but is not available at the time. Why should not we be governed by the same professional courtesy? Do we wish to confess that as a class we are less honorable? Do we wish the public to arrive at such a conclusion?

A lady came into my studio at Corvallis one day and showing me a photo I had made about a year before asked me if I still had the negative, and could I finish her two dozen more. They were of a younger sister who had died. In a few minutes I showed her the negative and booked the order. She then told me that her husband had taken the photo to my competitor a few days before and asked him to copy it. He saw that I had made the original and said, "Why don't you go to Emery's and see if he has the negative? If he has, he can make you better duplicates than I can copies. If he has not the original, I will be pleased to fill the order."

A young man from the country, a stranger in Seattle, entered the studio and said, "Is Mr. Braas in? I want to get a picture taken." "All right," said the proprietor, whose name was—well, it was not Braas, "walk right into the dressing room and get ready." Our enterprising proprietor then made the negative, collected the money and congratulated himself on his sharp practice.

A lady with her little girl entered another studio in Seattle and said to the proprietor, "I want you to make some sittings of my little girl. I was at So-and-So's studio last week, but although the operator made half a dozen negatives, none of them suit me; so, as I had not made any deposit, I concluded to try you." "Why, my dear madam, under the circumstances I feel that you ought to go back and give that studio another chance. They are out their plates and their time and really I could not be a party to such an unprofessional transaction." After a few minutes' further conversation the lady took his advice, went back and next time was perfectly satisfied with the proofs. The man, the real professional gentleman, was one whom we all honor and respect, our worthy vice-president, Mr. George Braas.

These examples are but a few of innumerable others that your own experience will call to mind, and which show the need of a more universal practice of professional courtesy, that courtesy which stamps a man to be at all times a gentleman and an honor to his profession.

And now, in closing, ladies and gentlemen, I earnestly hope and urge that every member of our association will take these thoughts home with him, study over them, practice them in your everyday life, and sooner or later you will decide that a rigid observance of the ethics of the profession is one of the best business traits a photographer can possess. I thank you for your kind attention.

The Relation of the Amateur to the Professional

By ARTHUR V. KENAH, A. C. A., London, England

An Address Delivered before the Seventh Annual Convention of the Photographers' Association of the Pacific Northwest at Seattle

Mr. President, Ladies and Gentlemen:—I need hardly say what pleasure it gives me to appear before you to-day, and to be granted the privilege of addressing a few words to such a distinguished representative body of photographers as those who have come to this Convention. The idea of my coming to Seattle originated with Mr. Savannah, and he persuaded me to make use of the opportunity to say a few words to you; this proposition was placed before your worthy President, who commended the suggestion, with the result that I now stand before you to say something on the subject of "The Amateur and Photographic Progress." One point, though, has been sorely troubling me, and that is under what heading am I to class myself? Am I an amateur or a professional photographer? To a certain extent I am both, and yet I am neither. This may seem strange, so I think I had better explain myself more clearly. I am an amateur inasmuch that I am extremely devoted to photography, beyond the fact that by its aid I enrich myself per annum to the extent of a certain number of dollars, and I suppose because I do this I may possibly be entitled to rank as a professional photographer. But, on the other hand, the methods I employ to further this advancement are not, strictly speaking, capable of being classed under the orthodox headings of every-day professional photography, and on this account I must inevitably fall between two stools. It seems to me that I am a sort of link between these two bodies—not the missing link, I trust—inasmuch as I appeal to both sections; ladies and gentlemen, I stand revealed before you in all the pomp and circumstance of a Press Photographer. The members of the Fourth Estate, each in their time, play many parts, and I at once admit that of all the duties that I have been called upon to perform, none have given me greater pleasure, or still continue to do so, than to be able, from time to time, to contribute articles of special or general interest on photographic topics, to papers and magazines of this and other countries. Indeed, for some years now, I have regularly contributed thereto, and have endeavored, to the best of my abilities, to diffuse my ignorance on photographic matters to those of my readers who are unfortunate enough to peruse my writings. Whilst engaged in this work, it has often occurred to me that the camera has not yet taken its proper place in the political economy of the nations—I do not know whether this idea has ever struck you—but it seems to me that its influence is a very pacifying one, and I think you will agree with me that where two or three devotees of the black art are gathered together, there reigns an atmosphere of peace and harmony which is a thing most beautiful to behold. I have, in the course of my life, traveled to many foreign countries, and I can assure you that wherever I have been I have always come across people who are photographic enthusiasts, and from them, even in

savage Russia, I have received a welcome which is at once sincere and spontaneous. Now, ladies and gentlemen, if we extend this idea to wider fields, is it not possible to imagine that the day will dawn when we will all be photographers, with the natural consequence that all points of difference between party politicians will be sunk, and we may even rejoice to see President Roosevelt clasping the hand of Mr. Rockefeller, and the pair of them quietly sitting down and discussing the relative advantages of plates and films, instead of making night hideous with their differences as to the morality of the Standard Oil Company; or even a glimpse into the near future may reveal Foraker hobnobbing with Taft and waxing eloquent over the virtues of the persulphate of ammonia reducer.

This idea is, of course, only one that would occur to an Irishman, but it is, nevertheless, a beautiful dream, and I can therefore fully sympathize with Hamlet when he remarked: "O, God! I could be bounded in a nutshell, and count myself a king of infinite space, were it not that I have bad dreams." However, the point is this, that photography, like all other scientific pursuits, has a pacifying and fraternizing influence which it behooves us all to cultivate to the utmost of our powers, and in no way can this be better done than by the establishment of Conventions, such as that of The Photographers' Association of the Pacific Northwest. When we seriously come to think about the mighty sphere of influence that photography plays nowadays in so many different fields of commercial activity, it seems hardly possible to believe that its discovery is only one of the bright events of the Nineteenth Century, and, indeed, only forms about the later two-thirds thereof as regards its practical realization. Truly, the growth of photography to its modern stage of perfection has been a rapid one, but the child was healthy from the start, and the nurses engaged in looking after it have been individuals of exceptional industry, perseverance and skill. Indeed, it is entirely due to their devotion and self-sacrifice that we have attained to the high standard of present-day operations, and I cannot help thinking that too many of us forget this fact when we sit down to pass judgment on the work of our friends and ourselves, and that we ascribe our success more to our incomparable abilities than to the perfection of the materials with which we have to work.

Indeed, there has always appeared to me to be a very strong connection between the amateur and the professional, and, apart from the fact that we both employ the same methods for the attainments of our ends, there is something far stronger than this to bind us together, and that is Progress. Those of us who are busy all day long in our studios cannot be expected to devote much time to the prosecution of research work, and therefore it has to be left to the enthusiastic individual who is more fortunately situated, both as regards the time and the financial means to pursue his studies, to continue these investigations for us.

There is no gainsaying the fact that the entry of the amateur into the ranks of photography has been attended with the happiest results to all of us, but there is also, I think, a tendency on the part of some narrow-minded professionals to regard him in the light of an antagonist, rather than as the



By A. L. JACKSON, TACOMA, WASH.
One of the set winning the Aristo Trophy
7th Annual Convention, P. A. of P. N. W.



By W. G. EMERY, VANCOUVER, WASH.
Salon Honor, 7th Annual Convention,
P. A. of P. N. W.

best friend he has. This is a very silly attitude to take up, for it is ridiculous to suppose that the amateur can ever hope to compete with the professional on his own ground, for, as a rule, he makes little or no attempt to specialize, but is content to experiment in all the various departments of photography, whereas the professional has to deliberately concentrate all his efforts on one particular branch of the subject, if he wants to make any success or name for himself. The attitude of the amateur to the professional is in striking contrast to this spirit of antagonism, for he knows that under normal circumstances he cannot hope to attain to such a state of perfection, nor, indeed, do the majority of them attempt to do so, and consequently he looks upon his professional brother in the light of a friend, and one in whose footsteps he would delight to follow. Where would be the present-day perfection in apparatus and accessories if it was not for the enormous demand made upon the manufacturers by amateurs, and to whom is it but the amateur that we are indebted for all the latest modes of art and artistic expression?

Whether or not we agree with some of the extraordinary exhibits we see on the walls of the photographic salons, we must at least be fair and admit that they represent a remarkable amount of activity and originality, and where we do happen to strike a really good thing, we are not, as a rule, slow to take advantage of the suggestions that it may afford. I do not mean to suggest for one moment that the professional photographer is one who is content to vegetate all through his life and to make no attempt to improve the standard of his work; on the contrary, the ambitious man is ever on the lookout for some means of improving both himself and the standard of his work, and is always keen to receive any suggestions which may tend to do this, no matter from what quarter they may come. Many of my most delightful hours have been spent in the dens of professional photographers, and I consider myself particularly fortunate in being able to count them among my friends, and there is nothing I esteem more than a quiet chat with a master of his craft, whether it be on the art or technical side of our work. After everything is said and done, we are all members of the one family, and we have each our own special spheres of influence; to the amateur is left the great task of extending the field of photographic influence into areas which at present know not its sway, and of continuing the research work of those fathers of photography to whom I have alluded to-night, whilst the professional may well content himself with the noble work of portraying humanity in such a way that his pictures bear that stamp of individuality and refinement which is only to be found in the masterpieces of great artists, and which is the reward of long years of perseverance and study in all that directly or indirectly appertains to the art and practice of photography.

Finally, ladies and gentlemen, whether we are amateurs or professionals, it seems to me to make no difference; to both of us the progress of photography is a matter of interest and importance, and it therefore behoves us all to work in harmony together, ever striving to improve our work, and by mutual help and sympathy establishing on a solid basis that spirit of fraternity and good will which goes so far to make life a pleasant thing, and which is capable of drawing out all that is best and truest in our natures.

Not Dogmatic

Article I

By RALPH MARTIN

Why is it that the negative image sometimes becomes reduced in the hypo bath; and why does it not become reduced every time? These questions, like all others in photography, are so simple as to be almost ridiculous.

When noted scientists unite, unanimously, in saying that the image on the negative is composed of molecular metallic silver; also, that it is not composed of molecular metallic silver; likewise, that it is composed of sub-haloid silver salts; that, sometimes, it is made up of metallic silver, sub-haloid silver, oxidized gelatine and modified developer, or that, when not otherwise composed or decomposed, it is a sub-oxide of silver, or an oxyhydrate of silver, or silver sulphide, or just a modified vibration of matter, innominate matter—why, when one has this valuable array of definite information before him, the solution of so simple a matter as is preluded to above, is almost automatic.

I, personally, have been unable to effect solution of metallic silver in solution of sodium thiosulphate, wherefore I will venture to formulate the weird guess that the part of the negative image that fades away in the fixing bath is not metallic silver, but is something else.

Owing to the fairly well ascertained fact that silver is a monad element, which means that it can combine with other elements (other monad elements) only in the proportion of one to one (go read your chemistry book—I'm busy) and that the haloid elements are likewise limited, the theory of sub-haloid salts, even when supported by seemingly plausible evidence, looks like a barrel hoop with the circumference omitted.

Being a pretty keen and accurate observer, myself, I have come to the conclusion that when actinic rays bombard a sensitive plate, something happens.

Let this soak in—it is very important:

When a sliver of wood, or of metal, or of any other thing of an aggressive, rigid and durable nature, digs, roots or otherwise imbeds itself in the sensitive cuticle or epithelial rind of genus homo, something also happens—something that appeals to several separate and distinct senses simultaneously.

It is possible to remove the sliver and relieve one or more of the involved senses.

Now, just for a guess, or a Sherlock Holmes deduction, let us say that a sliver of light inserts itself between the atom of silver and the haloid silver that compose the sensitive salt in the dry plate during exposure. The fact that we are unable to perceive any direct result may simply mean that we have no instruments at our command that are sufficiently acute to enable us to detect such result, for it is unbelievable that the so-called latent impression is not an actual impression, complete and perceptible in itself. When the ray of light struck the plate, something surely happened—something definite—and, as far as that particular step is concerned, complete.

If the plate be not subjected to development within a reasonable time, the sliver of vibration becomes disseminated and the silver and haloid atoms, having nothing else in particular to do, and on account of propinquity, reunite. This parallel applies completely to the sliver of wood under the skin, for if it is not promptly removed it will become eliminated by centrifugal expression, or will be disseminated by absorption.

The developing agent (developer) that removes both the sliver of light and the haloid atoms, leaving the non-assimilable silver atoms (now, by aggregation, having become molecules) behind in the plate, seems to do its work in somewhat the same way that a pair of tweezers do when they are yanking at a splinter—they both act by extracting something.

When the developer acts on the exposed plate, it extracts the supposititious silver or splinter of light, and, by introducing hydrogen, forms one of the haloid acids—none of which react with metallic silver—and leaves free silver.

But we have decided that the hypo bath reduces the visible image sometimes; wherefore, it appears that the silver does not exist wholly as metallic silver, but must, from necessity, be, partly at least, a combination of silver with some other element or elements. Only two elements suggest themselves as probabilities in this connection; one of them is oxygen and the other sulphur. The oxygen may be derived either from the water, from the gelatine, from the developing agent itself, from the sulphite, or from pretty much any other soluble or partly-soluble substance involved in the operation; and the sulphur may come either from the sulphite or from the gelatine, which latter has quite a considerable sulphur content. The nascent halogen acid that results from combination between the developer's hydrogen and the separated halogen atom of the light-struck silver salt, is extremely active, and may readily be presumed to effect decomposition of the sodium sulphite with liberation of free atomic sulphur, eager, with its freed bonds of valency, to pick up a couple of silver atoms. This silver sulphide would be black, and it would also be easily soluble in hypo.

Part of the visible image may then be composed of silver sulphide, but this writer does not feel justified in offering this solution, except by way of a suggestion.

If the negative be subjected to the action of the developing solution for a period somewhat longer than is just sufficient to form a mixture of free silver and some incidental silver salts, it seems probable, on the evidence at hand, that these latter and incidental silver salts will be eventually decomposed by the developing solution, leaving the visible image of a composition wholly metallic silver and insoluble and unalterable in the hypo.

Nearly all chemical reactions are strongly influenced by modifications of density of solution, and are also susceptible to variations of temperature. With a properly proportioned developer of the right temperature, and the employment of the factorial system and a developing tank of the type that is being marketed by Burke & James, it is not probable that the negative will lose anything of density in the fixing bath.

Science, which is an orderly tabulation of ascertained facts, has failed so conclusively to establish the chemical identity of the negative image, either

latent or developed, that I feel justified in permitting the reader of the above to promptly forget what he has just read, and go ahead with some independent guessing on his own hook.



By J. E. RALSTON, SEATTLE, WASH.
Certificate of Merit, 7th Annual Convention
P. A. of P. N. W.

Artistic Taste

The training of the taste is not purely a matter of ornamental education; nor does it imply, even indirectly, an affectation of luxury or of the expenditure of wealth. In most branches of trade and in many branches of manufacture, an artistic taste is a matter of practical importance in the gaining of one's livelihood. There are few kinds of handiwork in which the element of design does not enter, and wherever the arts of design are in question, taste has to be exercised.—William Henry Goodyear.

The Seventh Annual Convention of the P. A. P. N. W. at Seattle

The Seventh Annual Convention of the P. A. P. N. W. was called to order at 2 p. m., Tuesday, September 3d, in the commodious Eagles' Hall at Seattle, President W. G. Emery in the chair. After roll call of officers and reading of the minutes of the Spokane convention, the President appointed A. L. Hamilton of Seattle as temporary Vice-President, vice Geo. Braas absent, and I. Van Winkle vice A. L. Gomond, State Vice-President of Idaho, also absent. During the regular order of business which followed, there was read the resolution of Charles Butterworth and A. L. Jackson, amending the Constitution so that the term of office of the Secretary-Treasurer should be three years instead of one. After appointment of standing committees, the President announced special committees as follows: Nominations—A. L. Jackson, Charles Butterworth, Jno. Savannah, H. L. Trover and H. B. Wills; Complimentary Awards—Wm. Lussier, L. E. Edgeworth, R. L. Peterson and Edgar Frank; Salon Award—A. L. Jackson, Sue Dorris and E. K. Nordlund; Angelo Trophy—Charles Butterworth, Jno. Savannah and President Emery ex-officio; Auditing—J. F. Lee, J. E. Ralston and Paul Lehman; Resolutions—F. C. Ingalls, R. T. Parker, E. A. Lynn, Skene Lowe, and I. Van Winkle.

At 8 p. m. the Convention met for its first educational session, with the following program of addresses: President Emery, "The Ethics of the Profession"; A. L. Jackson, "Something of Importance to Photographers," and Skene Lowe, "Art in Photography." In the discussion which ensued talks were made by J. E. Ralston of Seattle, K. E. Nordlund of Ballard, Ex-Presidents Jackson and Savannah, and T. T. Richardson of Sprague. Under Good of the Association, it was decided to send an exhibit to the California Convention, such exhibit to consist of pictures selected for the Salon Award and Certificate of Merit; and the Secretary was directed to advise officially the Secretary of the California Convention, Fayette J. Clute, in regard to its disposition. After discussion of questions drawn from the Question Box, the meeting adjourned.

Wednesday morning the first order of business taken up was the amending of the Constitution in regard to duration of the Secretary-Treasurer's term of office. During these demonstrations the committees on Salon Award and Angelo Trophy passed on the photographs submitted for competition. The afternoon was given over to the School of Photography and the different demonstrations, all of which were largely attended. At 4 p. m. a special meeting was called by President Emery to receive the report of the Award Committees. A. L. Jackson, chairman of the Committee on Salon Award, reported that only four awards had been made in that class, announcing the winners as follows: Charles Butterworth, Portland, "Portrait of Man," Royal bromide; Moon & Wills, "Old Man," Angelo platinum; Wayne Albee, Tacoma, "Mother and Child," Sepia platinum, and W. G. Emery, Vancouver, "Child with



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State Vice-Pres., Oregon

Teddy Bear," Angelo Sepia. Upon motion of Chairman Jackson, a committee was appointed to select additional pictures from those on display to make up an official exhibit to be sent to the California Convention, such selections to also receive the Salon award. Those so selected were from the exhibits of Pautzke, Ellensberg; Jackson, Tacoma; Braas, Seattle; Savannah, Victoria; Lynn, Tacoma; Aune, Portland; Ingalls, Missoula; Paige, Davenport; Anderson, Vancouver; Lucy Tollman, Eugene; Libby Studio, Spokane; Ritter, La Grande; Wadds Bros., Vancouver; Marsden, Vancouver; Ralston, Seattle; Hamilton, Seattle; Hacking, New Westminster; Trover, Salem, and Foxall, Victoria.

Charles Butterworth, Chairman of Angelo Trophy Committee, reported that the photographs submitted by Wadds Brothers, of Vancouver, selected by them as winners of this trophy, had been protested, for the reason that one of the collection was not of the size prescribed in the conditions governing. Chairman Butterworth moved that a committee be appointed to pass upon the qualifications of all photographs submitted in this competition, and that the trophy be awarded by a popular vote of the Association. The motion carried, and the committee appointed by the President disqualified the exhibit of Wadds Brothers, of Vancouver, Mrs. Lucy Tollman, of Eugene, and J. B. Joslin, of Palouse. On vote of the members, the exhibit of A. L. Jackson, of Tacoma, received an overwhelming majority, and was awarded the trophy. At the Wednesday evening session, Councilman Revelle was introduced and delivered an eloquent address of welcome to the convention in behalf of Mayor Moore, who was incapacitated by illness. Addresses followed by Charles Butterworth, "The Ultimate Photography"; by ex-President Jno. Savannah, "The Other Side"; by E. H. Paige, "We're Here Because We're Here"; by H. L. Trover, "Good of the Association." A. L. Jackson, Chairman of the Nominating Committee, submitted the following names as officers for the ensuing year:

President, O. W. Pautzke, of Ellensberg; Vice-President, H. B. Wills, of Seattle; Secretary-Treasurer (3-year term), W. G. Emery, of Vancouver; State Vice-Presidents, J. E. Ralston, of Seattle, Washington; A. G. Churchley, of Portland, Oregon; F. J. Ingalls, of Missoula, Montana; I. Van Winkle, of Cul-de-Sac, Idaho, and George Marsden, of Vancouver, British Columbia. Upon motion of Skene Lowe, seconded by E. A. Lynn, these nominations were unanimously declared the choice of the convention. Under Good of the Association, there ensued considerable discussion upon the subject of future prize competition, and the manner of judging them. Upon motion of H. B. Wills, it was decided to continue such competitions, awards to be made by a committee of seven, selected by the Executive Board; such committee to be appointed secretly, and the award to be made by them by ballot.

At the Thursday morning meeting, President Emery called E. A. Lynn to the chair, and after reading invitations from the Mayor and City Council of Vancouver, and from the officers of the Columbia Club of that city, moved that the Association unanimously select Vancouver as the convention city for 1908. Motion was seconded by Messrs. Anderson, Magness, Jackson, and Butterworth, and unanimously carried by a rising vote. Will Lussier, Chair-

man of the Committee on Awards of Merit, reported that certificates had been awarded to exhibits as follows: Jackson, Tacoma; Savannah, Victoria, Butterworth, Portland; Trover, Salem; Emery, Vancouver; Moon & Willis, Seattle; Ralston, Seattle; Hamilton, Seattle; Rogers, Seattle; Braas, Seattle; Lynn & Cram, Seattle; Wayne Albee, Tacoma; Libby Studio, Spokane; Anderson, Vancouver; George Marsden, Vancouver; Hacking, New Westminster; Joslin, Palouse; Paige, Davenport, and Springer, Kelso; Richardson, Sprague; Neick, Hoquiam; Ritter, La Grande; Aune, Portland; Jenny, Mt. Angel; Brush, Everett; Milner, Spokane; Ingalls, Missoula; Pautzke, Ellensburg; Tollman, Eugene; Foxall, Victoria; Wienand,———; Rogers, Seattle; Romans Photo Company, Seattle; R. T. Parker, Baker City; R. S. Peck, Tacoma, and Rush, Winlock. Thursday afternoon at 2 p. m., the Knights of the Camera put aside all thoughts of Salon awards, Angelo trophies and blue ribbons, and three hundred strong, boarded the "Inland Flyer" for an excursion on Puget Sound. Bremerton Navy Yards, Pleasant Beach, and other points of interest were visited. At Pleasant Beach the Amusement Committee had arranged for an elegant lunch which was fully appreciated. Here the photographers had a group picture taken, after which music and dancing at the pavilion was the order of business. At 9 p. m., the convention was again called to order, and after listening to an interesting address by Mr. Arthur V. Kenah of London, England, subject, "The Relation of the Amateur to the Professional," Judge Belford of Tacoma entertained the members with a most interesting lantern-slide exhibition, consisting of Alaskan scenes, local views and still-life studies. Under "Good of the Association," E. A. Lynn made a few pointed remarks concerning the excursion and the banquet of the afternoon, and proposed three ringing cheers for the King County Photographers' Association, which had provided the entertainment.

Friday morning, the final business session was called to order; all matters that had been overlooked being called up and disposed of in order. The Finance Committee O. K.'d Secretary-Treasurer Emery's accounts, showing a balance of \$130.12. Secretary Pautzke reported an estimated balance for his term of at least \$250.00. President Emery appointed, as Finance Committee of Secretary-Treasurer accounts, F. J. Lee of Tacoma, J. E. Ralston of Seattle, and Paul Lehman of Tacoma.

President Emery then asked A. L. Jackson to step forward, and, in a few well-chosen words, formally presented to him the handsome Angelo Trophy. An unanimous vote of appreciation was tendered President Emery and Secretary-Treasurer Pautzke for their faithful and untiring services during the year past, and the Convention just closing.

A resume of the proceedings shows that the Seattle Convention was, in point of members in attendance, as well as financially, the most successful in the history of the Association. Every year new faces are seen, new members are gathered, while the old ones remain faithful and prove their love for Convention work by returning, year after year, to these annual meetings.

May our influence grow and spread till every photographer in the Pacific Northwest is enrolled in our Association.

O. W. PAUTZKE, Secretary-Treasurer

Printing Developing Paper

By WALTER D. PAYSON

While on my vacation I unconsciously ran upon quite a profitable bit of photographic work, or rather, the work was forced upon me by the other visitors at the hotel. The actual work being the most objectionable feature. I arranged matters as far as possible so that others might enjoy(?) the fascination of photography in much the same way that Tom Sawyer shared the delights of whitewashing his mother's fence.

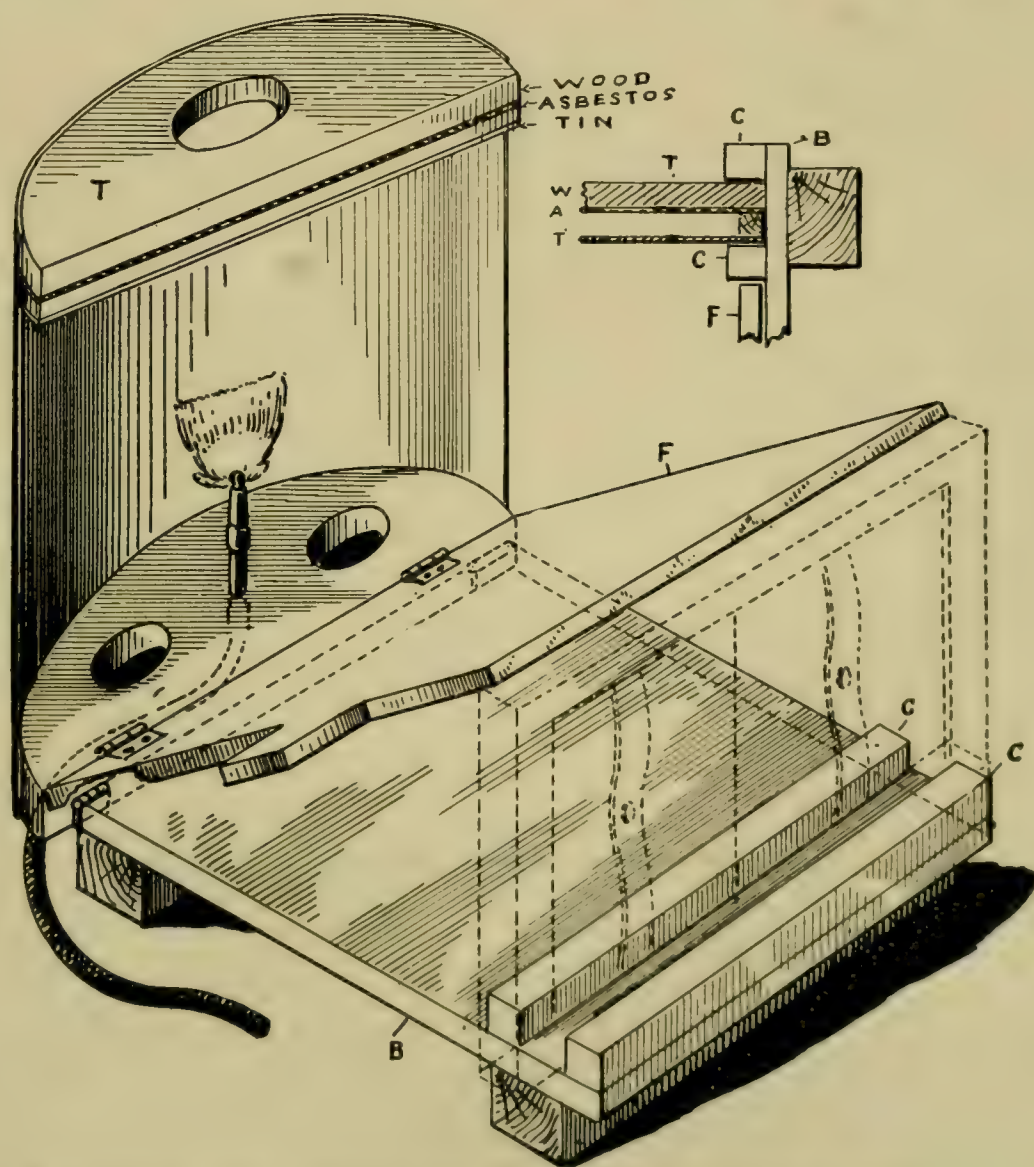
It all came about in this way: Coming back to the hotel with an unexposed film remaining on the spool, I thought I could hardly do better than expose it on the group of ladies in their dainty white dresses who were awaiting the announcement of dinner on the front porch. The negative turned out beautifully, as it seemed that at that particular hour the lighting at that particular place was all that could be desired. The next evening a print or two was, of course, handed around as evidence of my skill as I was really quite proud of the picture. Copies were wanted by everybody present, and in an effort to escape the work I advised that I could not devote my time to printing post cards, but would order some printed in the city. This involved too much delay and one or two of the party offered to help me in every way possible if I would only try and print a few myself. The fact that I had shown a sample demonstrated that prints could be made and a telephone message would bring any needed supplies from the city that same afternoon. I explained that even counting my own time as of no value the production of prints under the conditions would be both tedious and expensive. No excuses would avail. They insisted that prints must be had, must be had at once, and the hotel clerk should act as salesman, charging ten cents each for the post cards, in order that I need feel no embarrassment on that score.

Cards were ordered along with some amidol, sulphite of soda and other needed chemicals. Feeling sure that my self-appointed assistants knew little about the work and having in mind the tiresome holding up of the printing frame while getting off the sample prints, I spent the afternoon of the next day constructing a printing board that might facilitate the work. A sketch is appended herewith.

This drawing almost explains itself. The light is supplied by an ordinary gas burner, in reality a discarded fitting cut off with about six inches of the brass tubing attached. This was driven through a hole just large enough to hold it firmly in place. The two semicircular pieces of wood at top and bottom are pieces of a barrel top. They, in connection with a piece of tin, from a large sugar can, form the reflector. The lid which turns down to make the exposure is a thin piece of board over which another piece of tin was tacked. The holes at top and bottom are for ventilation; the two top ones being made "blind" by tacking a couple of blocks on the under side of the wood and then tacking to them a piece of tin with a hole in the center. The board which runs out forward carries two cleats spaced

so that they just held the printing frame and a couple of hinges were used to fasten this board to the base of the reflector. This allowed me to fold up the contrivance when not in use, the two cleats falling one above and one below the piece forming the top of the reflector. Two pieces were nailed on the bottom, as shown, in order to lift the whole thing clear of the stem of the gas burner which was below the reflector base. An ordinary piece of rubber hose connected the short piece of gas tubing with a burner in the chandelier over our working table.

The negative was glued down at each corner to a piece of glass that fitted the 5x7 printing frame and a 5x7 mat cut with an opening of the right size. By cutting two strips of thin card to just fit one side and one



The Letters on the small Sketch in corner correspond to those on the large Drawing.

end of the frame and glueing them in position on the mask, the most inexperienced person could place the cards in position in the frame. All they had to do was to see that the card rested snugly in the corner formed by the two strips. The picture then always fell in the right place with a neat border of white all around.

The reflector served a double purpose; it increased the light falling upon the printing frame and served as a shield behind which I could develop the prints in perfect safety. The only possible objection to the arrange-

ment was that the "swing down" door was inclined to give a little longer exposure to the upper side of the printing frame than to the lower, but this was really an advantage, as all the negatives were inclined to be a little more dense in the foreground or at least an additional printing of the foreground gave the prints a better appearance; so much so that certain negatives were "printed ahead" in the foreground by using this "swing-down" door as a shade for the lower or sky part of the negative.

My inexperienced help found the work very entertaining and as they could not well go wrong either in filling the frame or in making the exposure, I was left free to attend to the developing only. The result was that an enormous number were turned out and a new group negative made every other afternoon as I returned from my jaunts afield. My own work of developing my field negatives made the production of the group negatives little, if any, additional trouble and without this piece of crude apparatus the printing of proofs from them would have entailed as much preparation and nearly as much work as the turning out of from sixty to a hundred cards with the assistance of the other guests.

All in all the work was made most pleasant and after deflecting a portion of the proceeds to a most enjoyable bus ride and clam bake, at which I acted as host, I found my few weeks' vacation had netted me a snug little sum over the cost of photographic material, in addition to quite a satisfactory collection of good landscape negatives. Furthermore, the crude exposing device was found so satisfactory that a neater and more mechanical construction was employed in making a like piece of apparatus which I have used for practically all my gas-light printing since my vacation. Any one at all handy with the simplest tools can make one, and the convenience of using such a piece of apparatus needs only to be experienced to reward one for the outlay of a few cents and a little trouble.



THE RIVER PASTURE

By BELLE JOHNSON

To Restore Broken Negatives

By CARL A. BERGMANN

Illustrated by the Author

Whoever has the misfortune to break a valuable negative need not despair or make excessive use of profanity, for the damage can be repaired most effectively and satisfactorily. No doubt, many priceless negatives have been lost through breakage and their possessors committed them to the rubbish box, not thinking of the comparatively easy remedy to restore them in all their former beauty. Many articles in photographic magazines treating upon this subject advise the stripping of the film from the broken negative and the transferring of same to another glass plate, previously coated with gelatine or collodion, but I consider this a rather risky manipulation and the danger of losing the negative altogether, too great, to advocate it, especially when there is such a simple remedy at our disposal that neither endangers the original nor puts a stop to our experimenting. This remedy not only enables us to get a duplicate negative just as good as the original one, but permits us to improve upon the original if such is lacking in any particular quality.

My plan is simply this: In case the negative be broken into many fragments, take a clean glass, the same size as the broken negative, and put upon this the pieces, joining them accurately. Put another clean glass on top of this and bind the three together with passpartant binding or gummed strips of ordinary paper, as one would a lantern-slide, and cover glass. Next make a transparency of this (in the camera, of course), and if done right we will have a glass positive with the cracks represented as dark and light lines. These we remove; the dark ones with the etching knife and the light ones with the retouching pencil. From this transparency we can make another negative, or as many as we like, by either contact or in the camera, and if the work on the glass positive was done carefully, no trace of it should be seen on the ultimate negative.

If the negative is broken in two or three larger pieces only, a contact positive may be made in a printing frame without binding, by using a clean glass in the latter, upon which the pieces are put together, face up, and a dry-plate exposed in contact with them in the dark room. These are operations with which most photographers are familiar and offer no great difficulties, and above all, they do not jeopardize the original negative. Those that have not the necessary experience in these manipulations or do not care to bother with it, can easily find someone who knows how and will do it for them.

Most readers, I suppose, know how a duplicate negative can be made superior to the original by "dodging" the positive with ground glass substitute, or mineral-paper, graphite and stump, and "holding back" portions on same as in developing-papers and the like. Having first a

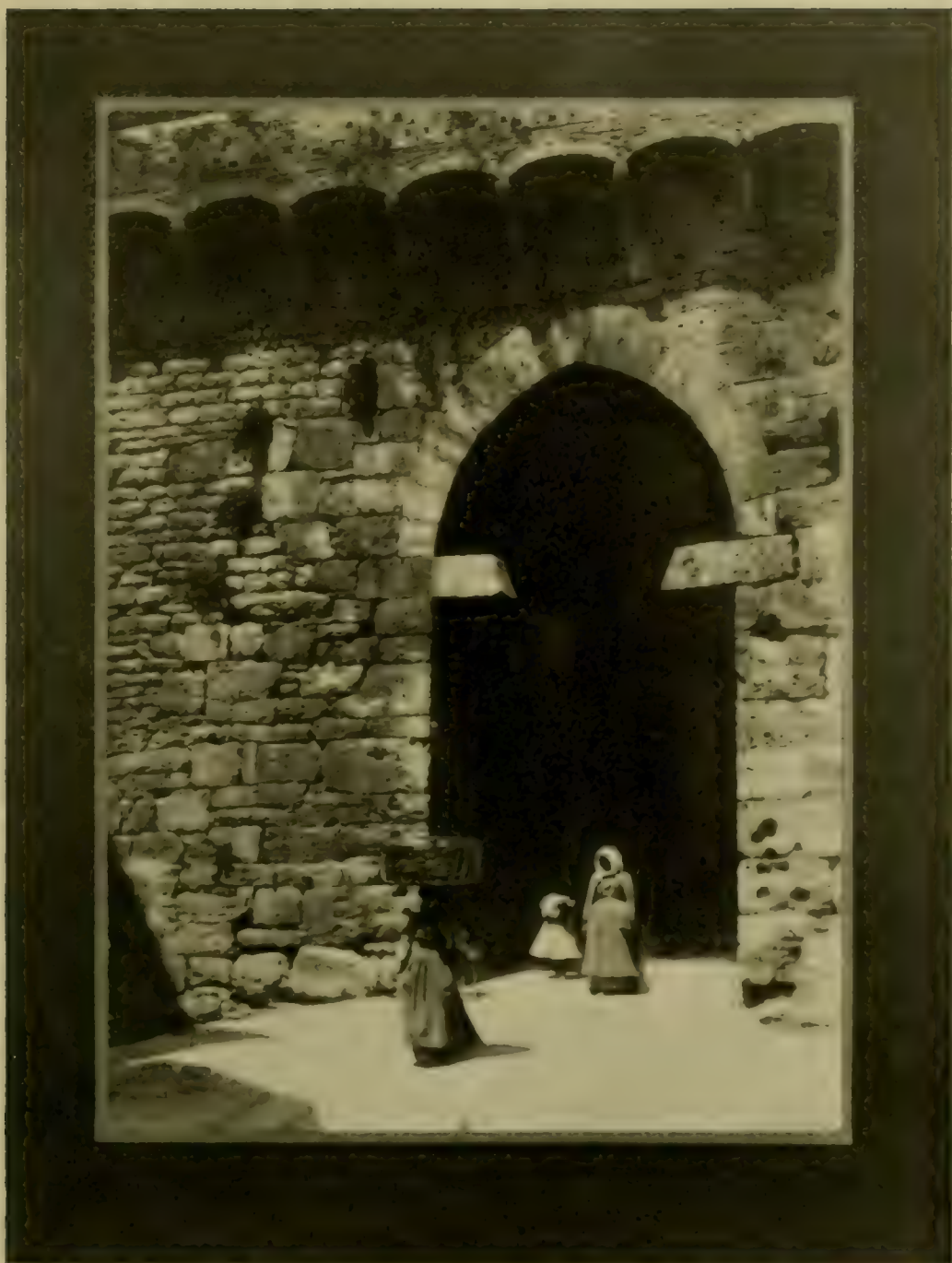


A PRINT FROM THE BROKEN NEGATIVE

transparency to work on and then also a negative on which further alterations can be made, it is clear that many improvements are possible over the original. Of course the etching and retouching part is not so easy and should be done by one who is an expert in that line of work. Years ago it was hard to find a retoucher who could handle the etching-knife skilfully, but now many clever etchers may be found. The transparency, and negative obtained from it, from which the prints accompanying this article were made, were exposed by the light of an ordinary match in the dark room, a Seed 26x plate being used.



A PRINT FROM THE NEW NEGATIVE



ETRUSCAN GATEWAY
THREE THOUSAND YEARS OLD
By WENDELL G. CORTHELL

Final Treatment of Bromides

By ELLIOTT CANFIELD

That it is quite easy to add to the appearance of a bromide print after it is washed and dried, seems to escape the notice of most users of this popular printing medium. In order to encourage the production of the best possible results I will set down a few methods that I have employed, and a few that I have not yet tried, for the improvement of the finished print on bromide paper. The most commonly used method of brightening up the prints consists of going over the dry surface with a tuft of cotton wool saturated with alcohol, using a little pressure. This is most generally employed as a means of cleaning up the print, but if it is followed closely with a rapid polishing, applied with a silk handkerchief and considerable pressure, the result will be to impart a transparent lustre without producing a gloss. In reality, the metallic silver particles forming the image will be burnished without giving the paper a gloss.

I have a formula clipped from a German magazine some few years ago that I have long wanted to give a trial. Translated by a friend it reads as being a cerate for producing lustrous bromide prints. The formula is simple, being equal parts of turpentine, oil of lavender and pure virgin beeswax. The ingredients are warmed in a water bath until the wax goes into solution, cooled, and then poured into well-corked, wide-mouthed bottles. It is applied to the surface of the prints with a soft piece of silk or flannel in much the same way as the old encaustic paste, the action of which its behavior must resemble.

This reminds me that this rubbing on of a cerate will displace ordinary spotting or retouching, and suggests the advantage of the following medium: Pieces of the same brand of paper as is being used are exposed to the light, developed, fixed and washed as usual. These pieces of wet prints are held over a vessel of boiling water until the darkened emulsion softens and becomes semi-fluid, when it is scraped off with a palette knife and put aside for use. It must be warmed in a water bath each time it is wanted, and, when applied with a spotting brush, becomes a part of the print, and can not be detected as an addition. The spotting done with this medium will no doubt respond to any sort of toning operations that the print might be subjected to afterwards. And this mention of toning reminds me of another improvement that is too often overlooked. I refer to the tinting of the paper. A worker in bromide recently showed me some handsome portraits that had been printed under an oval mask so as to get a soft edge; in other words, the mask had been placed on the glass side of the negative. After the print was finished and toned, a mask of about the same size was laid over it, stencil fashion, and a wash of weak coffee given the portrait. The final touch was given with another oval cut from stout card, and one of those handy little embossing tools used to give a plate sunk effect. Aniline dyes serve the same purpose; blue and bluish-green suggesting themselves for moonlight and marine views, red or reddish orange for firelight scenes, and so on.



WILL BREAKFAST NEVER COME?

By BELLE JOHNSON

The ordinary method of retouching bromide prints is very simple. A stick of India ink and a sable spotting brush are about all the tools that are needed. The principal requirements are patience and a little practice. The brush should not be too moist or allowed to carry too much color. One must also learn to estimate the depth of the color when dry, and also overcome the inclination to try and cover a large spot at one dab of the brush. The right way to do is to lay the color on gradually with a number of small ticks, gradually matching the shade of the surrounding parts. Another valuable tool is a pencil made by various makers under different names, characterized by an absence of gloss. Never, under any circumstances, use an ordinary lead pencil, as the shine or gloss of its mark when seen at the right angle, is almost as objectionable as the defect which it is supposed to remedy. The right pencil is called "Negro," by the Hardmuth people, and I believe there is a pencil known as charcoal, in wood the same as the ordinary one. If sepia toned bromides are being spotted it will be necessary to add some red to the India ink, and a trace of blue will be found advisable in the case of black and white prints; the black of the ink not matching perfectly. Do not try to use Chinese white, as it always looks patchy and does not match the high lights of the print. Black spots can be removed by picking them out with the point of a needle, a little at a time. The needle should be forced into a piece of wood, which serves as a handle. The sharp point of a knife or etching tool is also a handy instrument if used with care. Should the surface of the paper become rough-

ened it can be rubbed down with a piece of hard, smooth letter paper over the end of the finger. Large shadows can be strengthened by applying pencil or charcoal dust with a stump. Should much work of this kind be done it will be necessary to fix it, and nothing is better than a weak solution of shellac in alcohol. This should be taken up on a camel's hair brush and allowed to drop from the point so as to spread over the spot and "fix" the powder or pencil work. I might qualify my condemnation of the ordinary lead pencil by saying that it can be used in a pinch if one will take the precaution to afterward dull the work by dabbing it with a tuft of cotton dampened with alcohol. There are several toning processes that will greatly improve flat prints, but they are hardly within the scope of this article. At some future time I will give them mention.

Prints on glossy bromide and gas light papers can be given great brilliancy and increased gloss by squeegeeing them down to ferrotype plates or plate glass that has been previously well cleaned with benzine and polished off with powdered talc. If the highest degree of gloss combined with a waterproof surface is wanted, it will be necessary to resort to the method of enameling in vogue in the days of albumen. This is done by well cleaning plate glass, giving it a coat of collodion and then dipping the print in a warm solution of gelatine and squeegeeing it into contact with the collodion surface. When stripped from the glass the print will have a surface impervious to moisture and of the highest gloss. There is sometimes a tendency on the part of the collodion film to separate from the print, but if a formaline bath be given the prints before the gelatine is applied, there is little danger.

A formula which appeared in one of the English magazines, and which I have not tried because Globe polish is not obtainable in this country, promises so well that I will repeat it here. It is said that it gives a surface that can hardly be described as a gloss, neither has it the sticky appearance of varnish, but rather, the rich, satin-like surface of a smooth carbon print. The formula is nothing more than the well known Baskett reducer employed for rubbing down over-dense portions of negatives. Two ounces of both salad oil and terebine are mixed with a two-penny tin of Globe polish, in a wide-mouthed bottle, and then strained through muslin. It is applied to the face of the print with a tuft of cotton, going over the surface evenly. Then the superfluous grease is removed with a clean pad of cotton, and if thought necessary, a final cleaning with a few drops of benzine can follow.

In bringing this to a close I would like to say that all bromide and gas light prints should be subjected to a clearing bath before being washed and dried. It is not much trouble, and once the worker has become accustomed to using such a bath he will not be inclined to omit the manipulation that makes so much for good quality in his finished prints. In a future article I will deal with the improvement of faulty bromide prints by means of intensification, reduction, clearing, and other chemical means, should the editor feel that the interest in the subject will warrant such use of valuable space.

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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The Oakland Convention

The Fourth Annual Convention of the Photographers' Association of California will be held in Oakland, October 31st, November 1st and 2nd. As we go to press, every indication points to a large and enthusiastic gathering, with a particularly large attendance of photographers from the smaller cities and towns in the interior of the State. All Southern Pacific ticket agents in California, and the one at Reno, Nevada, and all Santa Fe ticket agents in the San Joaquin Valley, have been instructed to issue certificates that will entitle the holder to a one-third fare, returning from Oakland, after such certificates have been signed by the Secretary of the Association, at the Convention. Be sure and get your certificate. A certain number must be taken, and while a member close at hand may consider the saving not worth the trouble, he should remember that his certificate may be the means of saving not a few of his less fortunately situated brother members several large pieces of wampum. The prize winners of the Northwest Convention will be shown, and Colonel Marceau, of the P. P. S. of N. Y., has promised a representative collection of fine Eastern work. "Camera Craft" will show samples of color photography by the Pinatype, Autotype and Rotary processes, together with a sample of the new Autochrome pictures—all the work of contributors to its pages, and all made in this country. Dr. Power will demonstrate the new Ozobrome process; another of our contributors will demonstrate carbon printing, and Mr. Sparks, the editor of our former "Critic and the Print" department, will give an art talk, and criticize such pictures as the makers may designate for that purpose. These are only a few of the features, mentioned because they come closest in touch with our magazine. There will not be a dull moment during the three days. Of course, you will be there.

The Northwest Convention

Too late for our last issue came the full report of this well-attended convention of the professionals of the Northwest. This issue contains the report, together with such of the excellent addresses as the space at our disposal will permit. Others will be given in following numbers. Several of the pictures are reproduced. We must congratulate the Photographers' Association of the Pacific Northwest on the growing interest displayed in convention work by the photographers in the territory covered. Each convention

brings forth a larger attendance than that enjoyed by its predecessor, and this is doubtlessly in no small measure due to the wisdom displayed in favoring different sections year by year. The man who finds a convention being held near his home town will attend, where he would not do so were a more extended trip involved. He learns of the advantages to be derived from the gathering, and following years find him well willing to travel the greater distance to another city. Due credit, however, should not be denied the efficient officers who have done so much to assure the success of the conventions.

Our Proposed Competition

Our request for suggestions, made in the August issue, brought forth so many replies that we are more undecided than ever, at least, as to just what form the competition shall take. A regular series of competitions is wanted by a no small majority of our readers, that much is certain. While a large number of varied suggestions were made, we are inclined to favor a particular plan, put forth by our contributor, T. H. Holmes, as being both original and attractive. It is, in brief: The first prize to be a picture of acknowledged merit, by some photographer who is a leader in the class of work decided upon as the subject for that particular competition. The second prize to be the picture submitted by the winner of the first prize; the third prize to be the picture winning the second prize, and so on, down the list. This will give each worker, except in the case of the first prize winner, a chance not only to see, but to possess, the picture which the judges consider a little better than his own. We may, if possible, include a note with each picture going to a prize winner, setting forth in just what particular the judges considered the prize picture sent better than the picture which won it. A dissatisfied competitor would then have only to submit a new copy of his own picture, together with the picture won as a prize, to some competent critic, in order to satisfy himself that our judges had been as fair and impartial as they will be competent and able. We mention this for the reason that we desire to avoid, above all things, dissatisfaction. What we now want is a postal-card vote for or against the above plan, together with suggestions as to subjects for the first few competitions, and an expression of opinion concerning their frequency; whether monthly or quarterly. It has also been suggested that we get out a quarterly containing from one to two hundred small reproductions of the best pictures. This would involve a large expenditure on our part in the matter of half-tone blocks alone, not to mention paper and printing. If full data was given with each print, such a publication would, no doubt, have a large sale. In addition, if prices were given, it would serve as a valuable catalogue from which users of pictorial photographs, such as publishers and advertisers, collectors and others, might order, and in that way encourage the makers of good pictures to continue their efforts. This latter enlargement of our plan may not meet with the approval of all who might wish to compete, and we will, of course, ask for an expression of opinion on this point later, should the interest seem to warrant..

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame,
San Mateo Co., California

Sulphide Toning

D. B., in the "British Journal of Photography," promises that by following the directions below, one will "obtain a good rich color on any bromide print." The promise is as great as the much-desired blessing and we hope it will be realized. He writes:

"1. The prints must have been absolutely dry at some time between fixing and bleaching.

"If the print has not dried it will bleach very slowly and may take hours, and if parts only are still damp the final tone will be uneven, as it will also be if the hypo be not thoroughly washed out before bleaching.

"2. The final tone is said to be affected by the brightness of the negative and by the duration and completeness of development, but these statements may be ignored if the more essential points are carefully carried out.

"I have taken prints from the same negative, developed one for about one and a half minutes, one for two minutes, and one for longer. I also purposely over-exposed one and developed it incompletely, i. e., until it appeared fairly right. I toned all four together and got identical tones on all.

"It is true that the surface of the print affects the color at times. A glossy print tends to give yellower tones and a rough surface richer browns, but this is not always the case. Different makes of paper will, of course, sometimes differ slightly in the final result.

"3. The composition of the 'bleach' and the method of using it is, next to point 1, the most important to observe. The strength of the solution does not matter; it only acts quicker or slower as it is concentrated or diluted, but the propor-

tions of the potassium ferricyanide and potassium bromide should be carefully noted.

"I make up the following:

Potassium ferricyanide 2 ounces.

Potassium bromide $\frac{1}{2}$ ounce.

Water. 48 ounces.

This will keep in good condition for some weeks.

"In cold weather this will be found to act fairly fast, but in warm weather it can be diluted with once or twice the volume of water.

"The amount by weight of bromide should be quarter that of the ferricyanide; less will give the same result, but will bleach slower; more tends to a yellow tone.

"4. The amount required for a batch of prints should be taken and thrown away after use. On no account put it back into the stock bottle or use it for a second batch.

"Blake Smith, in his book on this subject, states that the ferricyanide bromide bleach may be put back into the stock bottle and used over and over again. It may be so with ammonium bromide, which he gives, and which I have not tried, but it certainly is not so with the potassium salt.

"The prints may be put in either wet or dry—that is, they may be wetted first, if attention has been given to point 1, and if they bleach unevenly through overlapping, etc., it does not matter, provided they are carried as far as they will go. They should then be washed until the yellowness has all gone.

"5. The sulphide bath is usually made as follows: One ounce of sodium sulphide is dissolved in ten ounces of water and boiled to precipitate the iron. It is then filtered and made up to ten ounces once more. One ounce of this and nine ounces of water make the working solution, into

which the bleached and washed prints are immersed, taking care this time that sulphide flows evenly over the print, or markings may result. The prints are then washed and dried.

"The editor of the 'British Journal' says that the used sulphite will not keep, as it is liable to stain the whites after it has been used a few times. In place of the sodium sulphide I now use ammonium sulphide, of which I pour a few drops to the pint of water. It gives identical tones with the sodium, and, being already a liquid, saves the trouble of making up.

"Its disadvantages are that the smell is rather unpleasant and the fumes must be kept away from sensitive plates and paper. As it is in use for only about two minutes at a time, and then in a very dilute state, these difficulties are easily avoided.

"6. The sulphide softens the gelatine, and on thin papers is liable to produce blisters, not in the bath itself, but in the final washing. They appear as in albumenized paper where there have been kinks in handling the prints. They may be avoided entirely by using an acid hardener in the hypo, and as an extra precaution in the case of thin papers a few minutes in a ten per cent formalin bath before the first drying. It does not appear to be necessary to wash the formalin out. If the prints are required to be glazed they should be given another formalin or alum bath after the sulphide."

Ozobromes From P. O. P. (Solio Etc.)

Ozobrome copies from solio have previously been made by myself and others, but the following details by Ernest Elder in "Photography" are the best so far published:

"Ozobromes may be obtained both by 'transfer' and 'non-transfer' methods from P. O. P. prints: (1) Unfixed. (2) Fixed. (3) Unfixed (gelatine) self-toning P. O. P.

"In the first place that of the unfixed print, the P. O. P. print after removal from the printing frame is thoroughly washed to remove the free silver, and then after being hardened by immersion for five minutes in ten per cent formaline, is washed for fifteen minutes. There is no advantage to be gained by using unfixed prints for the transfer method because in

such a case it is not possible to redevelop the bleached image to its original state. But it is preferable to use unfixed prints for the non-transfer method and to clear away the partly bleached image with Farmer's reducer.

"Prints to be fixed should be printed deeply, fixed in a hardening and fixing bath, composed of water twenty ounces, hypo three ounces, potassium metabisulphite one-quarter ounce, and then thoroughly washed to remove all the hypo. These fixed prints are equally suitable for either the transfer or non-transfer method. If used for the latter method the partly bleached image may be removed by Farmer's reducer, or it may be redeveloped and toned. Rodinal and metol-hydroquinone are very suitable developers for the purpose. After fifteen minutes' washing the print may be toned in a bath composed of twenty per cent solution of sodium sulphite three drops, water one ounce. In the case of weak Ozobromes this toning of the underlying image greatly adds to the richness of the finished print.

"If the fixed print is to be used for the transfer method it is only necessary to wash it for fifteen minutes after separation from the Ozobrome tissue, and after re-development it is again ready for making another Ozobrome. The bleached image redevelops up to but not beyond its original strength. It may, therefore, be left in the developer without fear of its being over-developed."

Night Photography

Robert Dykes recently read a very interesting paper on this subject, before the Edinburgh Photographic Society, and in doing so gave details concerning exposures that will prove valuable to any one experimenting in this neglected branch of photography. Condensing his rather lengthy table somewhat, we have the following: Open street scenes, squares, panoramic views, illuminations, extensive harbor scenes, and the like, well lighted with either electric or incandescent gas, clear, cloudless, with or without frost, after a heavy fall of snow, with a full or half moon, after a shower of rain, or with wet pavements; from September to February; between 8:30 p. m. and 3:00 a. m. with

stop f-11; Seed plate; exposure, fifteen minutes. During Summer months five minutes should be deducted when the sky is cloudless, and at that season the exposure should be made between 11:00 p. m. and 2:00 a. m. Country scenes with very little or no artificial lighting will require double exposure. Close views in small streets or at street corners, in dark squares not too well lighted, or where the principal objects are in the foreground, with other conditions as to weather, as above: exposure, twenty minutes. If there be no moon, very dark and overcast, cloudy, no wet reflections, or no snow, an additional ten minutes will be necessary. The country scenes, with little or no artificial illumination, are only possible under the weather conditions first mentioned. The above exposures are very full, and it may sometimes be necessary to shorten them, but it is advisable to avoid doing so, if possible. With a "spectrum" plate and a lens working at f-6, an exposure of one minute, or even, in some cases, of ten seconds, is possible.

"Art and the Camera"

This is the title of a new book treating of the many considerations that enter into the production of artistic work in photography. Its author, Antony Guest, is recognized in England as an authority on matters pertaining to art principles as they are applicable to photography, and in his articles contributed to the photographic press of that country, he has proven his thorough fitness for a masterful effort such as this book will be found. The text is divided into some forty-seven essays, a few of the titles being as follows: Is Photography an Art? Special Attributes, Delicacy, Lesson from Painting, Requirements of Art, How to Observe, Study of Values, Decorative Arrangement, What to Leave Out, Picturing an Idea, and the like. The arrangement of the chapters is not such as to invite consecutive reading, but it is distinctively a book for study, each of the essays furnishing ample food for considerable study and review. No small portion of the book's value lies in the forty-nine handsome illustrations, reproductions of pictures by the best known pictorial photographers. Each of these is analyzed in the text with

comments that are fresh and interesting, and in a style that is smooth and unlabored. The arguments put forth are convincing; and, while the reader may here and there disagree with the author, he will do so only after giving Mr. Guest credit for much that is inspiring and instructive; in fact, credit for a larger measure of these good qualities than the average writer succeeds in placing before his readers. The book is published by the Macmillan Company, New York, at \$2.00, net, postage extra.

California State Dinner

Just how rapidly San Francisco is recovering from the effects of the fire may be realized when it is learned that already plans are afoot to inaugurate the new Palace Hotel with a California State Dinner, to be given in commemoration of the rehabilitation of the city of San Francisco. The California Promotion Committee has already engaged the hotel for this purpose, and the new hostelry will be opened in such a blaze of glory as has never before marked a similar occasion. It is the intention of the committee to make this one of the most notable banquets of the times, and, according to the plans, which are yet incomplete, it will certainly be the most remarkable dinner ever given on the Pacific Coast. To this dinner will be invited the President of the United States and his Cabinet, members of the Diplomatic Corps at Washington, noted financiers of the country, Governors of all the States of the Union, with their Staffs, together with other notables, who will make this gathering the greatest and most interesting that has ever been held.

It is expected that the Palace Hotel will be completed and ready for occupancy two years from now, and so great are the plans that the committee feels that it will take the entire time to complete all the arrangements for this State dinner. The committee has already closed its arrangements with the Palace Hotel Company, and has a number of artists working out special designs for the seating arrangements and decorations of the banquet hall. It is determined to have these decorations entirely unique in the matter of banquets, and a number of startling surprises will be in store for the guests on that memorable occasion.

Club Notes

California Camera Club

On Friday evening, August 30th, a set of interchange slides, received from the Kodak Camera Club, of Rochester, New York, was shown at the club rooms, and afforded the members an evening's pleasant entertainment. The classes in bromide enlarging will continue to meet on the first and third Monday evenings of each month, until further notice.

One of the most enjoyable outings given by the club this year was the trip to Lake Tahoe, from September 6th to 10th, over Admission Day. Eighty-four members and friends constituted the party. The weather was delightful, with fine cloud effects, and many excellent pictures were secured. The trip on the lake and the journey up Mt. Tallac were keenly enjoyed. Only one fault was found with the outing, and this complaint was voiced by everybody, that it did not last long enough.

The club's two hundred and second illustrated monthly lecture was delivered by Joseph B. Travis, on Friday evening, September 20th, at Christian Science Hall, before a large and appreciative audience. The subject was "The Cradle of Liberty," and dealt with old Boston and nearby towns in Revolutionary days. The audience broke into frequent applause, and closed the entertainment with patriotic singing. During the intermission, W. F. Holt, organist of Grace Episcopal Church, rendered several fine selections on the grand new organ. The slides were by President Albert Le Breton.

The August exhibition of Dr. Gustav Eisen's collection of enlargements of European, Moroccan and local views attracted such favorable attention that it was continued until September 19th. W. E. Dasonville's famous collection of prints from negatives made by him in various parts of California, including the Yosemite and Kern Valleys, and some of the old Missions, were hung in the club rooms, on September 20th. These prints were recently exhibited in the East, including New York and other points, and are much admired for their true artistic feeling.

The next monthly lecture will occur October 18th, and will illustrate Vesuvius and Pompeii, from negatives made by Dr. Gustav Eisen, who will tell of his experiences during a recent eruption of the volcano.

A special event and one of importance to the club, will be its "pay show," the first to be given since 1905, booked for Tuesday evening, October 22d, and intended for the benefit of the apparatus and equipment fund. The club gives a free lecture monthly, and one pay show annually, and feels sure that an appreciative public will largely attend on this coming benefit night. The slides will be made from selected negatives taken by the members on their Yosemite outings this year, and from other choice views. Other attractions will be included in the evening's entertainment.

The International Photographic Exhibition, Dresden, 1909

The official program, translated into several languages, is to be issued the end of September. The first edition of ten thousand will be sent, and stand to the disposal of all clubs and persons connected or interested in photographic art and industry. For the first this concludes the preparatory work of organizing this great enterprise. The numerous committees will now begin to organize the details of the four principal groups of the exhibition and their various sub-divisions. As renowned representatives of the trade from all parts of the world have willingly offered their assistance as contributors and commissioners a full success of the exhibition seems to be assured. The exhibition is planned on an hitherto unequalled scale. It is to show for the very first time every possibility of application of modern photography in art, science, technic, in short, the many-sidedness of the whole photographic industry. Efficiently supported by the government, the county council and her numerous artists, Dresden herewith undertakes quite a novel task, which is to be hoped will bring her the same success, as her former exhibitions of international fame.

In Professional Fields

Weather-proof Photographs

A professional in the southern part of the State has been using an advertising scheme for several months, and it seems worthy of mention here. The idea is to suggest the permanency of his productions. A carbon print is transferred to a sheet of aluminum and given a coat or two of the best hard varnish. This is tacked to one end of the sign where it has been exposed to the weather for several months with little if any injurious results. To heighten the effect of an actual photograph the negative from which the carbon print was made was secured by photographing a large print, mount and all. This gives the effect of an ordinary mounted photograph, and while there is, of course, a certain amount of deception about the production, it would seem that a careful worker who seriously tried to secure all possible permanency in his output would be justified in emphasizing the importance of such care in some like manner. In fact such a method would act much like a boomerang in any other case than that of a photographer who was quite sure of the lasting quality of his work. To make this print even more suitable to the purpose intended it would perhaps be better to use a japan or lacquer such as is employed when "firing" is a part of the process, the ordinary kitchen oven acting as the firing oven. It is further suggested that the announcement of superior permanency might be made to specify only the carbon productions of the gallery and the regular opal glass support employed instead of the metal one advised above.

Another Display Idea

A local dentist—and dentists' cases are much like those of the photographer—has a very effective display that gives what seems to be a good idea for the maker

of portraits by photography. The entire case is lined with a soft surface black paper as is also the front glass with the exception of an oval opening near the center. Just back of this opening is supported one of those enlarged models of a tooth about five inches in height with several gold fillings clearly shown. The effect is very striking and if the photographer will substitute a neat little medallion in a gold or silver frame the effect would be even better. The general public can be advised that the steal is from the dental profession, and this will, perhaps, stimulate their ingenuity of mind to invent new variations of the alleged dental-chair joke.

Treatment of Bichromate Sores

A new and successful remedy for this unpleasant and intractable trouble has been devised by Dr. Riederer of New York. It consists of the washing of the affected parts in a five per cent solution of sodium bisulphate.

The Cost of Photographs

In these days, when every family contains an amateur photographer, the professional, oftener than heretofore, comes in contact with the customer who has added up the cost of the plate, chemicals, paper and mounts, and found that the photographer was making about eighty per cent. In other words, the professional photographer only stopped a little short of highway robbery in dealing with his customers. Such an individual was talking with my friend up the street the other day, and he got an explanation somewhat along these lines: "Go in next door and buy me some No. 000 watch screws. The steel they are made of costs about sixty cents a pound, and you ought to get an ounce of the screws for a five-cent piece, as that will allow a profit of twenty per cent." The customer did not try the ex-

periment, but, had he done so, he would have found that an ounce of the screws cost several dollars, despite the fact that they were turned out by machinery, and, beyond a doubt, the manufacturer had an output of dollars where the photographer's output amounted to cents. At any rate, the customer was made to realize that the cost of the raw material did not mean the whole thing. In proportion to his output, the photographer has a very high cost of production. His place of business must be where rents are high; he must maintain several rooms that are practically idle, except as the customer calls, and his actual business hours are quite short as compared with those of the merchant whose customers are in evidence all day. All in all, it is a wonder that the photographer can turn out the material in the shape of finished pictures by only multiplying the actual cost of the material by four. The wise ones do not try to do even that.

Prepare for Quick Work

I am not going to advocate the changing from Aristo Platino, or some similar paper, to developing or slow bromide papers, by the man who finds the former best suited to his way of working and the demands of his trade, but I will relate a little story that may point a moral. It runs as follows: Thompson is an average professional in a fair-sized town, and has always done a good business. Several years ago he tried developing papers, but his customers always selected the warmer-toned prints on Aristo Platino, and so he discontinued the former. However, as each new paper was brought out he gave it a trial, and experimented with the various methods of working as they were suggested by the makers, or in his favorite photographic magazine, as time permitted. The result was that he hit upon a certain paper and particular method of working that gave him very satisfactory results with a soft style of lighting and a light-gray ground. Following it out, he produced some very pleasing samples and laid them aside with little further thought. Continued bad weather just before the holidays brought a rush of work at the eleventh hour, when there was no prospect of getting out the prints in time,

working in the usual way. The sample prints on developing paper were brought forward, and, as they were entirely different in character from the cheap work being turned out by the ordinary users of such papers, they at once took the fancy of his customers. When it was explained that they were produced chemically, and therefore could be promised promptly, while the others had to await the sunlight that was none too plentiful, their case was won. Of course, the particular style of the picture, due to the lighting and ground employed, did much to popularize them. The fortunate part of the situation lay, however, in the fact that Thompson was prepared with the samples, that they were pleasing, and that he was qualified to turn out equally good work without any hesitation or fear as to the results. The other high-class studio in his town tried to substitute developing paper, but, through inexperience in its working, simply succeeded in dissatisfying its customers and inviting unfavorable comparison between its work and that of the cheaper galleries that were making suitable negatives and working the paper fairly well.

Business Methods in the Studio

The average professional photographer is inclined to look upon the introduction of other than the most superficial form of accounting into his studio management as a concession that may invalidate or disparage his claim as an artist. The photographer may be an artist, he quite often turns out work that is entitled to rank as artistic, but in his neglect of business methods he can not consistently withdraw himself from the business classification in the hopes of strengthening his claim as an artist. The amount expended for material and the employment of hired assistance is such a large proportion of and so closely related to his income that he is of necessity a business man. His brother artist of the brush works under entirely different conditions. His expenditures for materials are meagre in comparison and they bear no fixed relation to the resultant income. This is an age of commercialism and the professional in making concessions to prevailing conditions need not feel that he is doing so at the expense of his professional standing.

The Amateur and His Troubles

By FAYETTE J. CLUTE

Over Exposure Controlled

One of our correspondents, Frank Foster, of Fresno, California, is kind enough to send an extract from a recent issue of the "Amateur Photographer," of London, that will, as he suggests, no doubt interest a great many of our readers. The quotation is as follows: "It is a well-known fact that potassium ferricyanide is an excellent reducer for plates that are over dense. Over-exposure results in great density. If, therefore, the ferricyanide will reduce the density itself, why should it not reduce the factors which go to produce that density? It will, and does. The following solution is suitable: Potassium ferricyanide, twenty grains; water (distilled), five ounces. It may be used repeatedly. The plate is taken from dark slide and the solution of ferricyanide poured over it; in a few minutes, five to ten, say, according to amount of over-exposure, the silver salts will be slightly oxidized; wash the plate and develop as usual, and the negative will be found as bright and plucky as can be desired." The writer whom Mr. Foster quotes is not quite logical in his query, although his answer applies in that particular case. Neither is the process entirely new, as the addition of a little ferricyanide to the developer has long been recommended as a means of producing clear negatives. Those trying the method should observe that the ferric, and not the ferrous, salt is indicated, or failure may result through a mistake in the chemical used.

A Frequent Cause of Stains in Negatives

Every photographer who has taken up the hobby during the last eight or ten years has the praiseworthy ambition of getting his negatives as free from stain as

he can. The belief that stained negatives—usually pyro stained ones—give "pluckier" prints than those that are not so disfigured is an interesting survival from the photographic dark ages, and an admission that the stainer has still something elementary to learn about the practice of developing.

There is, however, a form of stain to which I wish to refer, as it seems its nature and origin are overlooked. When the film on a plate contains, in addition to the developer, an appreciable quality of a soluble silver salt, given time enough, a stain is formed. The time depends on the composition of the developer chiefly. Such a state of things does not usually occur when developing. But if a negative saturated with developer is transferred direct to the fixing bath, there is always a risk of the developer acting on the silver dissolved by the hypo. It is to this that must be attributed the bad stains which are sometimes met with when hydro-kinone is the developer employed, as this agent seems particularly prone to form them. The lesson, of course, is that a plate should always be rinsed between developing and fixing. A thorough wash is not needed, and is undesirable on other grounds, but a rinse is most important. In the case of hydro-kinone it is more than important—it is essential.—Practicus in "Photography," London.

Handling Excessive Contrasts

A local worker, a commercial photographer, showed me some remarkably fine photographs recently, remarkable mainly for the entire absence of that hardness which one naturally expects to find in pictures of such subjects as his photographs portrayed. They were a series of interiors taken in one of the small private hospitals in this city, and the building being originally a deep, double

flat on a long, narrow lot, one can imagine how trying the situations must have been, particularly as it was necessary in nearly every case to point the camera in a certain determined direction that was not in the least influenced by the suitability from a photographic standpoint. The method adopted was one that our professional friend has long employed with the greatest success. The plates are given an exposure that insures over-exposure. Development was started in a solution weak in pyro and well charged with bromide. This deficiency of pyro prevented any danger of excessive density, while the full exposure assures detail in the deepest shadows. The excessive restraining action of the large amount of bromide reduced the apparent speed of the plate and kept development well under control. As soon as the image is well out in this preliminary developer, the plate is washed to remove the bromide, and development concluded with a strong solution entirely restrained. Washing out the former developer results in saturating the film with water and for that reason a very strong developer is in reality somewhat diluted as it enters the film. The action of this final development with the strong, unrestrained developer proceeds regularly and with the steady increase of density in the same apparent ratio as would be the case with a correctly exposed plate, except that the excessive range of contrasts has been reduced to a scale which the plate can record. There is no blocking up of the high-lights and detail in the shadows is fully secured. In other words, the range of even gradation is greatly increased. Another advantage lies in the fact that the full exposure and entire lack of forcing precludes any tendency to fogging and degradation of the shadows so common in connection with other methods of developing such exposures.

Blisters and Sulphide Toning

A correspondent in Nevada has trouble with his bromide prints blistering after toning in the sulphide bath. He does not advise exactly as to his method of procedure, but a few precautions are necessary under some conditions, particularly in certain localities where the water used is conducive to this form of annoyance. A rightly-compounded acid alum fixing bath should be used, such as was described in our pages in a recent issue. This should

not be overworked, and if the surface of the prints feel soft after having remained in the bath for about a minute, the bath should be thrown away and a new one substituted. In a fresh bath the surface of the prints should feel somewhat as does a piece of oil-cloth, after an immersion of a minute or less. The prints should be dried after being fixed and washed and before being bleached for the sulphide toning. The sulphide solution should not be too strong; half an ounce of the saturated solution in forty ounces of water being ample, and the prints should be removed from the bath soon after the darkening has gone as far as it will. If blistering still persists it would be well to follow, without washing, with a fairly-strong alum bath. A good plan is to allow them to remain in this alum bath until the batch is done, and then gradually remove the alum solution by introducing a stream of clear water.

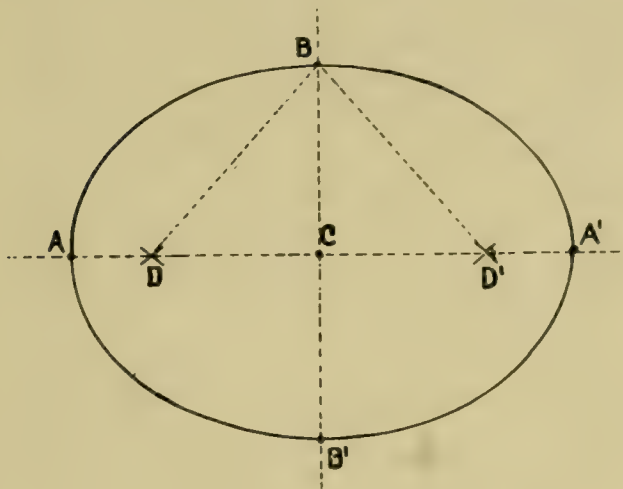
Acid in the Mercury Solution

A reader in the East writes to ask why some recommend the addition of hydrochloric acid to the solution of bichloride of mercury used in bleaching negatives for intensification, and others make no mention of it. The hydrochloric acid is supposed to facilitate the dissolution of the mercuric chloride, and it also acts somewhat as a preservative, particularly if the water employed in making the solution be other than distilled. It is also supposed the addition of the acid facilitates the washing out of the mercury solution after bleaching. It has no action whatever on the image, nor does it affect the process of intensification other than in the slight measure suggested. A saturated solution of the mercuric chloride made up with distilled water and discarded as soon as its action becomes slow, will give entirely satisfactory results. Even the distilled water is only a refinement, ordinary tap water being all that is needed when but occasional use is made of the solution and the danger of it becoming exhausted but slight.

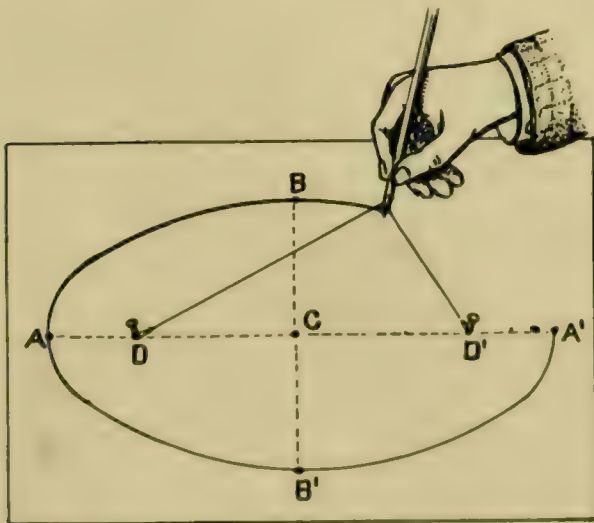
Drawing a Perfect Oval

We all know how to lay out an oval with the aid of pins, thread and pencil, getting just the length we want in the resultant outline, but the position of the pins has to be changed, not infrequently,

several times, before the desired width of the oval is secured. The diagram below, which F. H. Mann, of Washington, D. C., kindly sends, will show us exactly how to set the pins in the right place at the first. AA' is the desired length of the oval, and BB' the width; C is the exact center where the two lines connect-



ing A and A', and B and B', cross. Using a pair of dividers, or the straight edge of a card, measure off the distance from A to C, or one-half the length of the oval. Setting one point of the dividers, or one mark on the edge of the card, as the case may be, at B, place the other point of the dividers, or the other mark



on the card, at that point where it will just touch line AA', this, of course, depending upon the proportionate width of the oval. Make a mark here, D in the sketch, and do the same, to locate point D' in the other end of the oval. Drive in pins at D, D' and A, making the loop of thread just large enough to reach around the pins at A and D', including, of course, pin at D. Remove the pin at A and insert the point of a sharp pencil in its place in the loop

of thread. Slide your pencil around in the loop and it will cross B' and B, giving the oval the exact width that is desired.

Toning Bromides with Copper

A good, one solution toner for bromide prints is easily prepared from the two stock solutions given below:

A

Sulphate of copper..... 60 grains
Neutral citrate of potassium..240 grains
Water 20 ounces

B

Ferricyanide of potassium.... 50 grains
Neutral citrate of potassium..260 grains
Water 20 ounces

Equal parts of each of the above solutions make the toning bath which gives varying tones according to the time for which it is allowed to act and to some extent upon the character of the developer used developing the prints.

Mending a Graduate

In a recent letter, R. B. Turpen, one of our occasional contributors, gives a good hint that will no doubt interest some of our readers, both amateur and professional. He says: "A few days ago I accidentally broke one of my largest graduates by breaking the stem, and, as I had two others in the same condition, I set about fixing them in the following manner: I secured three tin salve boxes from the druggist, just large enough to contain the butt of the graduate, where all of mine happened to be broken, and where they all most usually break. I filled these boxes full with a mixture of plaster-of-paris and water, and then set the bottom of the graduate down into the mixture, solid and square. The plaster-of-paris dries or "sets" in a few minutes, making the graduates more substantial than ever, although not quite so nice in appearance."

Varnishing Negatives

Despite the fact that the varnishing of negatives has practically been abandoned, the frequency with which we receive inquiries as to the possibility of removing silver stains from a valued negative, suggests that, at least in the case of negatives that cannot be easily duplicated, and from which prints are being constantly

made, varnishing should be employed. The general idea seems to prevail that varnishing means the heating of the negative and the employment of considerable skill in applying a smooth and even coating. This was the case in the old wet-plate days, but with our modern cold varnishes, one requires only enough skill to use a brush or mop in spreading a small pool of varnish over the surface of the film. As good a varnish of this description as one can want is made by adding one ounce of japanner's best gold size to every two ounces of benzole. A pool of this is poured in the center of the negative, spread to the edges with a camel's-hair brush and the excess poured back. The negative should be set on edge to drain and become dry. Another good varnish, but one that will take longer to dry, can be made by cleaning the emulsion off of some waste films and dissolving every twenty grains in a mixture of an ounce each of acetone and amyl acetate. This is used in the same way as the former. A varnish suitable for film negatives is made as follows:

Borax	2 drachms
Carbonate of soda	30 grains
Bleached shellac	1 ounce
Glycerine	30 minims
Water	5 ounces

This should be boiled in a water bath until all the ingredients are dissolved, and the bulk then made up to ten ounces with water. After becoming cool, it is to be filtered. To apply this, the films are dipped directly into the varnish and allowed to remain for a couple of minutes. They must, of course, be pinned up to drain and dry.

Coloring in Pastel

A correspondent writes to ask if there is any chance of his achieving success at the work if he takes up pastel coloring as a spare-time occupation. Much depends upon his possessing some artistic ability; but, supposing that he has a little talent in that direction, the rest ought to be quite easy with a little practice. The enlargement should be on some fairly fine-grain surface, like platino bromide. After being mounted and allowed to become perfectly dry, a little pumice powder from a muslin bag is dusted over the surface and, with

the palm of the hand, rubbed in until a fine tooth is secured. In selecting the pastels from the dealer in artists' supplies, preference should be given the quiet tints, as the brilliant colors are difficult to handle satisfactorily and the results are inclined to be crude, except in the most skilled hands. In putting on the colors, one should start with the grays, and use the warm colors at the last, and use them very sparingly. No great skill is needed in putting on the tints, as they are to be rubbed in with the finger after all are in place. In doing this, the finger is covered with a piece of leather, a piece from an old kid glove being very suitable. In softening the outlines in this way, there will be a certain amount of the color removed, but this is remedied by going over the work with the pastels and touching up portions here and there and adding details as required. A little practice will give one confidence, and if there is any artistic ability, it will manifest itself at an early stage.

A Different Mounting Scheme

We have all become so accustomed to securing pleasing mounting effects through harmonizing shades and tints that we entirely lose sight of the power to secure effective results through the employment of contrast. This was brought to my mind by seeing some strikingly pleasing mountings in the reception room of a local professional the other day; mountings that suggested in their satisfying qualities the juxtaposition of ebony and silver. The prints were rough surface bromides, prints without a single deep shadow; in fact, the whole picture in delicate gray. These were mounted on black cover paper of a matt surface corresponding in texture very closely with the print. The intense contrast between the mount and the print endowed the portraits with a particularly pleasing silvery effect that was very pleasing. The idea is a good one if the exact quality necessary can be secured in the black mount and the effort to obtain the effect is fully justifiable by the results, particularly at this time when these effects in the upper tones of the scale are so popular with many of our best workers.

Notes and Comment

Blumauer-Frank's new Catalogue

One of the handsomest and most complete catalogues of photographic goods that it has been our pleasure to examine for a long time is the new one issued recently by the Blumauer-Frank Drug Company, of Portland, Oregon. It is a book of over one hundred and sixty-four pages, illustrated with cuts of everything photographic that one could well imagine. The cover is a fine piece of work in black, green and gold; and all in all, it is a book that will be valued not only for its fine appearance but for the fund of information which it contains. Judging from this catalogue, while the amateur is fully taken care of, the professional will find in their stock about the largest assortment of goods fitted to his wants that he could expect to be carried by any one establishment. A request will bring a copy, and the opportunity is one that should be grasped by all of our readers who want to know what is obtainable in the way of photographic supplies.

The Popularity of Probus

The increased demand for Probus preservative paint has made it necessary for Wolff & Dolan to seek more manufacturing and storage space. This they have done, with the result that much added warehouse space has been secured at 2327 Post Street. This will relieve the pressure on the factory and allow them to continue filling their rapidly increasing orders with the same promptness that has always characterized their method of doing business. The office, as heretofore, will be at 1455 Broderick Street. Probus is an article of great merit.

Its base is a mineral that is practically indestructible, and possesses great resistance to moisture, acids, alkalies, cyanides and fumes, gases, etc., while its solvent is one of the most penetrating liquids known. It leaves a perfect protective coating, which it is not possible to obtain when benzine, turpentine or dead oil solvents are used. It spreads easily and dries rapidly. It will not

scale, crack or run, presents a smooth surface, adheres tenaciously, and is not affected by climatic conditions. It possesses great strength and elasticity. It penetrates deeply and leaves a coat equal to two coats of good metallic paint. A gallon covers about two hundred square feet of smooth surface.

The New Graflex Catalogue

We are just in receipt of the new catalogue of Graflex and Graphic cameras, and to say that it is a beautiful piece of printing is to fall far short of doing it credit. The cover is handsomely lithographed in colors, and the text carries some eighteen or twenty examples of clever photographic work produced with the cameras, which are illustrated and described. Two of the largest of these illustrations are child studies by Alfred Stieglitz, and all of them are most interesting. Besides the regular lines, the new 3A Graflex and the Naturalists' Graflex are specially worthy of notice. We would advise every reader of this magazine to send at once for a copy of this catalogue. It can be secured of all the dealers, or will be sent direct on application to Folmer & Schwing Company, Rochester, N. Y.

"B. F. D. Photo Bulletin"

The first issue of a handsome little monthly publication with the above name, has just reached our desk. It will be issued regularly by the Blumauer-Frank Drug Company, of Portland, Oregon, who will be glad to send it to any professionals in their territory who will send in his name and address. The aim of the new publication will be to keep the photographer in touch with what is going on, and advised as to the latest improvements in photographic equipment and apparatus. The publication of such a journal is evidence of the progressiveness which has all along characterized this popular house, and we would advise all our readers in the Northwest to get in touch with them by sending in their name and address so that the *Bulletin* can be mailed them.

Sprague & Hathaway's Price List

We are pleased to receive a very complete and convenient price list of the crayons, water colors, pastels, and oils turned out by the Sprague & Hathaway Studios, West Somerville, Massachusetts. We have seen several examples of their work recently, and can recommend it to our professional friends without qualification. The firm undertakes all classes of work, including portraits on porcelain, ivory miniatures, point crayon and red chalk drawings, and the like. Their crayon and pastel work is very fine, and with the reasonable prices that they make, a photographer should be able, with their help, to add considerable to his income by showing a few samples to his customers. The excellence of the work assures him that he will have no other word than praise from his patrons. Write the firm for one of their price lists and figure it out for yourself.

Controlling Tone of Iris

Tone is easily controlled after becoming familiar with the general principles of the process. The tone of prints as they leave the fixing bath should be decidedly olive.

Bromide of potash is important in controlling tone, and at least as much as is recommended in the formula should be used. Be sure that it is a saturated solution, and not a ten per cent solution. It is impossible to state a given amount of bromide as sufficient for producing the same results in different parts of the country on account of water conditions, etc. If the amount of bromide given in the formula does not produce prints that are olive, it may be slightly increased without harm. It is not advisable to use too much, as an excess of bromide destroys the soft gradation of the paper. If it is found that the slight increase of bromide does not make prints olive, it will be advisable to add one drop of nitric acid to each ounce of developer.

Exposure and development are also responsible for producing a variation in tone. For instance, a print that is fully timed so that development takes place freely, will be olive in tone as compared to a print that is under-timed and forced in development, although the same developer is used for both prints. To obtain rich, brilliant prints of proper tone they should reach the desired

depth without forcing the development. This is regulated by proper exposure.

The paper possesses considerable latitude of exposure, and extreme over-exposure, also extreme under-exposure, should be avoided. Over-exposure and quick development will increase the contrast of the paper and destroy the detail in the shadows. Under-exposure and forced development will cause prints to be flat and weak, cold in tone, and lacking detail in the highlights.

After prints are fixed, they may be rinsed and toned as directed. Do not over-tone. Tone only enough to remove the decided olive color. Over-toning will cause prints to be cold in tone.

"The Principles of a Lens' Action"

The above is the title of what is perhaps the most practical and instructive little booklet that has reached our desk for a long time. It is not new as a publication, having been written a few years ago by the senior member of the firm of Taylor, Taylor, & Hobson, Limited, of Leicester, England, but we are convinced that it is new to a large proportion of our readers who are unaware of its value, and the fact that it is sent free upon request by Taylor, Taylor & Hobson, Limited, St. James Building, New York, N. Y. Did the little book have the wide circulation which it merits we would not receive so many queries from our readers concerning lenses, queries which are fully answered in this excellent booklet. The illustrations and diagrams add greatly to the value of the text, and are of such exceptional merit that they have been copied by numerous writers in the photographic magazines since their preparation by Mr. Taylor as illustrations for his article. We would advise all our readers to at once supply themselves with a copy by sending a request to the address given.

Industrial Photographs Wanted

The "Industrial Magazine," Collinwood, Ohio, writes us that they are anxious to secure good photographs and description of any industrial work, including excavating and conveying machinery, railroad work, and the like. They suggest that possibly some of our readers who wish to sell photographs may be interested in knowing that they are in the market for this kind of work.

CAMERA CRAFT



SAN FRANCISCO, CALIFORNIA

A Plea for Cyko Prints



Platinums
Carbons.

J. Moody Dawson
Elegance in Photographic Art,
Houston, Texas

Dear Mr. Stanbury:-

I just thought I would write you to thank you for that beautiful Professional Cyko Paper you just sent Mr. Schaeffer. He gave me a sample. I made two prints and left my dark room and went to the phone and ordered two gross of cab. I finished up some orders for Platino on this paper and my customers were highly pleased with it. I think you have ----- skinned a city block and that means you have the finest developing Paper on earth. I am tickled to death with it and will use it without fail as long as I am in the profession and you make the paper. With best wishes, I am,
Fraternally yours,

Will send you some prints in a day or so.



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THE BLACKSMITH
By J. A. HARAN
PORTLAND, OREGON
First Prize, Genre,
Oregon Camera Club Exhibition

CAMERA CRAFT

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Portrait Photography and Art Education

By OTTO WALTER BECK

Mr. Beck is the author of "Art Principles in Portrait Photography" which we reviewed on page 379 of our August issue. The work is published by the Baker & Taylor Publishing Company, New York, price \$3.00. It is a book that has the unqualified endorsement of the photographic press of this and foreign countries and we would advise all our readers interested in portraiture to secure a copy. Mr. Beck's lecture before the last National Convention was one of the features of that gathering.

The display of photographs at the National Convention at Dayton, Ohio, in August, must have seemed to the thoughtful observer to mark the beginning of a new era. It showed a distinct departure from old lines. Pictorialists were in the lead, and these advanced workers showed efforts made in diverging directions, all making for a high quality in portraiture.

It was noticeable that contributors of good, straight photographs felt the difference between their work and that of the progressives. The photographs of the former did not rise above the likeness. Since all photographers aspire to portraiture, the difficulty plainly lies in the circumstances that there is not generally possessed a perception of what is the difference between a likeness and a portrait.

When we stand before such pictures as Dudley Hoyt of New York, or J. M. Appleton of Dayton, contributed, and look from them to neighboring displays of plain photographs, then it is that we perceive the portrait to be unmistakably higher than the likeness. We notice that in the portrait every part of the picture contributes to the one impression, while in the likeness the faithful tracery of form brings with it a certain chaos, and exposes the producer's ignorance of pictorial principles.

At this convention, the old faith in posing, lighting and backgrounds suffered a change. Light has been thrown on these three pillars of straight photography, revealing the fact that Art gives a new meaning to the pose, a new and more limited purpose to lighting, and wholly changes the office of the background.

In time, each photographer, wherever and however situated, will be brought to consider the principles that underlie pictorial photo-portraiture. Art education teaches that even the most carefully-selected pose will seem made and constrained, unless we treat it pictorially. We are learning that the so-called infallible truth of the camera is not a picture truth; therefore

we must make our pictures easy reading for the mind by bringing every line and tone in our representation completely under our control. This result is not to be expected from the unaided camera and unmanipulated plate.

In Fig. I, there is a meaning; also an expression of feeling in the choice of the geometric framè lines, E, F, G, H. By intelligently using these lines, we can mould our representation of the man to accord with our conception of him; equally true is it that, if we are ignorant of what lines do, we may unwittingly render a caricature. If we know exactly what is required to make the relations right in the background (marked A, B, C), the man's figure will appear to fill the picture plane satisfactorily. But an indiscriminate background will either "crowd out" the figure, "lay it on," or bring it into con-



flict with the personality we are endeavoring to portray. A well-felt and rightly-managed background is necessary to bring the likeness up to the quality that gives the portrait.

Without in the least altering the facial expression, or the pose in Fig. I, we yet change the character of the man by any slight alteration, such as the increase of height, or the introduction of certain forms or tones in the background. How these principles condemn our practice in good, straight photography, where the shape and size are determined by destructive trimming of prints, and where the background is made up of accidents inconsistent with the pictorial scheme of the portrait.

Lighting, too, is weakened by good, straight photography. Analyses of the line and of gradation easily prove this statement. For instance, plain photography has marginal sharpness, and the fuzzy line with which to render form; both are abused, and both as used harm the lighting. Pictorial art

reserves geometric lines for the picture's edges, and for all picture forms it employs the descriptive line.

In Fig. I, every line has marginal sharpness, and the result is that the figure of the man is made to seem transparent, thin, laid on, and on the plane with the frame line. By this means, all sense of body, of bulk, the concrete, is done away with, and since lighting exists for the sole purpose of representing body and giving the third dimension, we find in uncontrolled marginal sharpness the greatest enemy lighting has. The fuzzy line is simply a blur on the paper to effect obscurity, and in no sense is it an aid to lighting.

In Fig. II, the descriptive line is used. Notice, at point I, there is an accent of the line that is unusual; at III, it is lessened in intensity, and at II, there is almost an interruption; the thinness of IV differs from the firmness of V, or the delicate VI.

The same analysis of line extends down the face and throughout the body. These lines are descriptive, because they tell us that where there is a strong accent, the light strikes heavily, and where there is delicacy, there is a modified light; further, these accents tell us whether the form is cartilage, bone, or muscular structure, and we are made to perceive what the form is doing. These lines thereby produce what we call drawing. They effect relief or roundness in the form, and they create depth in space.

Even the best good, straight photographs misuse the marginal sharp line, and that softness so aptly termed the fuzzy line. They fail to render the descriptive line. There are complex art reasons behind these observations, that require much study, for they are all important. Art analysis clearly reveals that good straight photography fails in lighting, the pose and the background, and it points to manipulation of the plate to right the deficiencies.

In the galleries of this year's National Convention, we no longer had discussions of the old themes; instead, the men were talking of lines, of gradations, relations and qualities. There was everywhere manifest a desire for a searching analysis, and individual criticism before the photographs was much sought for.

All who are interested in pictorial photography should make it a special point to see the difference between the treatment of abstract factors and the mere copying of concrete; the difference between Nature and Art. They should also come to understand how to arrange spots, that they may comprehend the illustrative elements.

They must make themselves familiar with the numerous principles that form the basis of picture construction.

Photo-processes to make effective any artistic intention are now at our command. The good, straight photograph will always be the base, but manipulation by the trained artist will raise the likeness to portrait qualities of a high order.

It is not beauty of the subject which makes it a work of art, but the beauty of the form which the imagination of the artist gives to the subject.
—Denman W. Ross.



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GEO. H. KNIGHT, Vice-Pres.

Fourth Annual Convention of the Photographers' Association of California

The Fourth Annual Convention of the Photographers' Association of California, was held at Foresters' Hall, Oakland, October 31st, November 1st and 2nd, 1907. Despite the fact that only about seven weeks intervened between the decision being made that a convention should be held, and the actual date of holding, the result was one of the most successful conventions held by the association. While the interest displayed by the visiting photographers was not as keen as it might possibly have been, any lack on that score was easily traceable to the somewhat poor display made by some of the local dealers and manufacturers who were not prepared with the necessary samples and stocks demanded for their usual fine displays at the convention. Nothing but praise could be granted to the officers of the Association and its efficient convention committee, for the manner in which every detail was handled.

The first day was spent much as are all convention "first days." In the future, the California Association will have its "first day" the day before. Everybody exchanged greetings and renewed old acquaintanceships. The exhibits and displays were inspected, and the demonstrators indulged in a little practice play, just enough to see if their trays were water-tight and their solutions in working order. The evening



F. A. WEBSTER, OAKLAND
Fourth Annual Convention, P. A. of C.



DORSAZ, OAKLAND

Fourth Annual Convention, P. A. of C.

session was well attended and very interesting. Mayor Frank K. Mott, of Oakland, earned the esteem of all by appearing promptly and delivering a most cordial address of welcome. Treasurer T. H. Milton responded in a happy vein, in behalf of the Association. Will Sparks, of San Francisco, gave a particularly instructive and entertaining talk, basing his criticisms and emphasizing many of the points made, by using pictures selected from the exhibits, as examples. Geo. L. Wilcox followed with an address: "My Impressions of a Country Photographer."

Friday morning there was a talk and demonstration on "Skylight Work," at the studio of F. A. Webster, by Frank Davey, of Palo Alto. Mr. Davey entertained the photographers most thoroughly with his practical methods of securing the best results under the skylight. At one o'clock the members assembled at the Chamber of Commerce, and took special cars for a trolley ride and luncheon, as the guests of the Oakland Chamber of Commerce. A visit was paid to the Greek Theatre at Berkeley, luncheon at Idora Park, visit to Piedmont Park and the new Art Gallery, returning through the beautiful Lake Merritt District and Alameda. The hall was open to the public during the afternoon, and, as the program had been given wide publicity by the newspapers, a most gratifying attendance was the result.

MRS. COCKROFT, ALAMEDA
Fourth Annual Convention, P. A. of C.

Friday evening found the seats enclosed by the displays and in front of the stage, well filled. Miss E. F. Hannavan, of the Webster Studio, delivered a most instructive address on "Appointments and Order Getting." O. H. Boye interested the members with a talk: "Studio Expenses, or Cost of Photographs." B. W. Adams, of Napa, described his very simple and practical "Card System of Records for Small Studios." Each address was followed by spirited discussion that added greatly to the interest. During the evening a nominating committee was appointed by President McCullagh.

Saturday morning there was a brief business session, during which officers for 1908 were elected. Following, Samuel P. Johnston, of Johnston-Dienstang Advertising Company, San Francisco, delivered an address.



By McKEEN, SANTA CRUZ

Fourth Annual Convention, P. A. of C.

"Advertising a Photographic Studio." His remarks were followed closely, and at their conclusion a number of the members availed themselves of his offer to reply to any queries they might desire to put. Mr. Johnston's address was no doubt the feature of the convention, and will appear in an early issue of this magazine, if not in connection with this report. The election resulted as follows: President, James Henry; vice-president, R. P. Whigham; vice-president, southern, L. M. Powell, Hanford; vice-president, central, B. W. Adams, Napa; vice-president, northern, W. H. Vallentine, Redding; secretary, Fayette J. Clute; treasurer, T. H. Wilton, and sergeant-at-arms, G. Moulin.

Awards of merit were made to the following exhibitors: Miss Patterson, Fruitvale; Mrs. Gertrude Cockroft, Alameda; B. F. Dooley and A. W.

Rice, of Berkeley; J. C. Shinkle, Woodland; W. R. Leimert, Oxnard; T. Taylor, Marysville; K. Churchman Bros., Chico; C. F. Kohler, Los Angeles; Frank Davey, Palo Alto; J. T. McKean, Santa Cruz; H. M. Porter and F. G. Brown, Petaluma; Mrs. Hare, Santa Clara and W. T. Fitch, Fort Bragg.

Over three hundred pictures, divided into some thirty-two exhibits, were placed on display by the members. The San Francisco and Oakland members decided not to compete for any award. A special exhibit from



TERKELSON & HENRY

Fourth Annual Convention, P. A. of C.

the Pacific Northwest Association created much interest, as did also an individual exhibit by Secretary Emery, of the sister Association.

The convention closed with a most enjoyable banquet at the Hotel Metropole, at 9:30. H. L. Richardson presided as toastmaster in his usual masterly and entertaining style. A "sightseeing" trip around San Francisco was indulged in by a few of the members, starting at 10:00 a. m., Sunday, bringing to a close one more of the successful gatherings to the credit of the Photographers' Association of California.

Appointments and Order Getting

By MISS E. F. HANNAVAN

An Address Delivered Before the Fourth Annual Convention of the
Photographers' Association of California

I shall not attempt to tell you anything new in regard to reception room methods; simply remind you of what I consider the few most important points to observe in meeting the patron. Before proceeding to the subject matter I wish to say just a few words concerning the appearance of the reception room and the dressing rooms, which in most studios are under the supervision of the lady receptionist. Keep them as orderly as possible each day, not some days. Do not leave prints scattered about, but return them to their places in folios which you should have systematically arranged. Have at hand a few choice prints to show any particularly appreciative patron, in a separate folio. Arrange greens or cut flowers about your studio when obtainable. I have found them to be a valuable asset, often opening the way to some interesting conversations. After sitters leave, re-arrange the dressing rooms.

Not the least important part of the reception room equipment is the lady in attendance. She must be refined, enthusiastic and sympathetic; never mechanical. With her rests the success or failure of the business, assuming, of course, that good photography is the rule of the studio. Meeting the patron, as she does, so many times, it is very necessary she be philosophical in temperament and be able to approach advantageously the many varying characters, not all of whom are thoroughly agreeable, either. I will mention a few familiar types, and I am sure you will all recognize each and every one of them. One that is not altogether pleasant is the amateur. He informs you with a warning tone in his voice that he knows something about photography. Only yesterday I met such an one in our studio, one who was very amusing, and I believe you would have thought so, also, had you been present. He came in with no small amount of importance in his bearing. Following is the conversation:

"Can you take a group of three people in this studio and focus them properly? Understand me, get the correct focus on them." I knew at once he was an amateur.

"Yes, I think we can," I replied, and proceeded to show him several prints of groups of three and more. After scrutinizing them closely he said:

"Yes, those are all in focus. The photographer must use a wide-range lens." I presume he had been reading advertisements in "Camera Craft." After making a few further remarks he drew from his wallet several 3x4 prints taken by himself, which he offered for inspection. They were everything but good.

Another type is the very plain young lady who brings in a picture cut from a newspaper or magazine and expresses a wish to be posed in

the same manner. The pose is nearly always one entirely inappropriate for her. The stout lady nearly always returns for a resitting. She knows she is stout but thinks Mr. Photographer has made her look much stouter than she really is. Then there are the rush-order patrons. Comparatively speaking, they are in the minority. When you meet one I think it is the best policy to do your utmost to get his order ready for him on the date he specifies.

When a person enters the studio I presume at once he or she is interested in our photographs. After bidding the time of day, I nearly always open conversation with the remark, "You wish to look at some photographs?" The answer usually informs me as to who they are and I proceed to show several specimens of photographs that I think would be appropriate; all this time getting at their idea by their remarks and at the same time mentally diagnosing their financial condition.

Patrons may be divided into two classes: those who care for low-toned artistic prints and those who prefer clear-cut pictures with a marble finish in human likeness. Unless asked, I never disclose a preference for fear of offending. Until they specify, I never show small sizes. Showing the larger prints, I nearly always take a frame of an exclusive design from a cabinet conveniently at hand and carefully arranged and lay it on the print, adding fifty per cent to its appearance and also preserving the photograph, another important point to mention. Besides, my patron discovers that we also have a choice line of frames. Next I show some carefully tinted photographs of the best available subjects. This must be done smoothly, else it will be too apparent you are a clever saleswoman. Be clever, but conceal it. Put your heart into your salesmanship. Be enthusiastic over the beautiful prints you display and you are sure to transmit some of your enthusiasm to your customer. We want people to get the picture habit. We may not sell all we have suggested, but the total increase of sales for the month will be better than if we had shown only plain photographs and waited for a few to ask if we sold frames and did tinting. Talk about large work and call attention to a few choice artistically framed specimens upon the walls. At a later day your patron may wish something in that line. Spend as much time as you can spare with every prospective customer. They will be more apt to return and feel that much more at ease and at home when they do. Do not quote prices by the dozen. A negative will give off more or less than a dozen. Give the price for the first print and the duplicate price per print. I have found this invariably leads to the ordering of larger work, patrons feeling that they can order at their own convenience.

Lay particular stress upon the necessity of making an appointment for a sitting. Do not allow patrons to think they can drop in at any time and be accommodated at once. Failing to do this is not conducive to the impression that yours is a busy studio. If they do come when the photographer is busy, the man, woman or child, as the case may be, becomes impatient and ruffled—something to be absolutely avoided in a studio. A



"PORTRAIT OF MISS T."
By GARO, BOSTON

visit to the studio must be a pleasure trip from the beginning to the end. So much for the prospective patron.

The patron has now come for the sitting, according to an appointment which has either been phoned or written. I register the name, address, and order and collect something on the account. I prefer this method because one is invariably busy with another customer when this first sitter is finished. On a printed slip which I hand the photographer, are all particulars. We use this also for recording the number of exposures made, size of plates and the like.

The customer next visits the studio for the proofs, if they were not to be posted. It is much better to have patron call for proofs, if possible, because you then have another opportunity to talk up the good points of several proofs; thus bringing up the sum total of the order to a higher point. Try to look over proofs carefully before the sitter calls for them, so that you can talk intelligently, and to the end that the patron feels you have been interested enough to give them this previous attention. Be sure to get the opinion of the party who made them. This, I find, always carries a great deal of weight.

In closing, just a few words on the delivery of the photographs: By looking at your cards in the order drawer you know each day what orders are promised. I take it for granted you use the card system, as it is by far the best. Attend to this each morning, and if the entire order is not ready, have as many as can be completed for the date promised. In delivering the pictures, appear as interested as you were in getting the orders. Do not be indifferent or mechanical. If the pictures are not just to the patron's liking, find out what the objection is and have them altered. This is the only way to increase your list of patrons and hold those you already have. Suggest framing or tinting some of the prints, should opportunity present, whatever they specified when they first interviewed you, should opportunity again present. I believe that in a photographer's reception room, as well as in a department store, the power of suggestion needs to be used continually. The methods I have outlined appeal to me the best, even after visiting a great many different studios and observing the methods employed.

Composition

Composition means literally and simply putting several things together so as to make one thing of them, the nature and goodness of which they all have a share in producing. Thus a musician composes an air by putting notes together in certain relations; a poet composes a poem by putting thoughts and words in pleasing order; and a painter a picture by putting thoughts, forms and colors in pleasing order. Composition understood in this pure sense is the type in the arts of mankind, of the providential governments of the world. Though no one can invent by rule, there are simple laws which it is well to know.—Ruskin.

The Oregon Club's Exhibition

By ONE OF THE JUDGES

The Oregon Camera Club held its thirteenth annual print exhibit at the Portland Museum of Art, October 21st to 26th. Thirty-eight members displayed 195 prints, the exhibition being composed exclusively of members' work. To say that this last exhibition is an improvement upon its predecessors is making but a mild statement. To say that it would compare favorably with the several San Francisco salons of a few years ago, despite the fact that the latter were made up considerably of outside work, challenges dispute only on the score of portraiture. Our Oregon workers, favored as they are with the ocean so near at hand, the river at their doors, and beautiful scenery all about them, can hardly be blamed for leaving portraiture to their professional brethren who are well represented in Portland.

The competition for the Judd cup created the most interest, several of the best workers competing. The cup was won by J. A. Haran, whose exhibit was not only very strong, but surprisingly even in quality. It should be explained that this cup is awarded to the best general exhibit, the conditions demanding that four classes of subjects be included. Henry Berger Jr., perhaps the best worker in the club, lost the award through the introduction of a very poor portrait which so lowered his marking that Mr. Haran scored above him. George F. Holman, who has twice won the coveted cup and was expected to gain possession of the trophy by winning it for the third time, failed to score higher than third. Among the circumstances resulting in the disappointment of his friends may be mentioned the exceptionally fine work shown by Mr. Haran and Mr. Berger, his own ambitious efforts at poster and impressionistic work and a somewhat formal effect in his portrait, still life and flower study work. He entered for the Judd cup only, and this will explain why none of the minor awards fell to him. The photographer who specializes in a certain class of subjects stands little show of winning a trophy that is awarded under the conditions governing the Judd cup. For that reason it is hoped that the next such trophy offered will be given without the restriction imposed as to subjects. The marine photographer rarely has the taste or inclination to produce a good flower study. The worker with a penchant for portraiture is not often tempted to don slickers and subject his camera to the playful breakers of the Pacific. The importance of the Judd cup should give every contestant an opportunity of appearing at his best; and this can only be done by leaving him unrestricted as to subject.

Reviewing our notes in the catalogue and our vivid recollection of the most striking pictures, we will take them in their order as printed. L. E. Anderson shows a bathing scene, "The Mazamas' Cold Plunge at Mount Jefferson." Although the figures in themselves are very fine, single figures or small groups would have been more effective than the picture as shown. George F. Bardon shows nine, not for competition. "Portland Harbor," perhaps the best, is of excellent quality. "Falls of the Willamette" is very good, but the rocks at the left are a trifle too dark. George E. Beeson shows

a single landscape. Henry Berger Jr. shows ten. His "Last of the Iredale" won honorable mention in the seascape class, despite too much foreground and the moon dangerously near the top of the picture. "Lost" won the cup in the animal class and is a remarkably effective picture. "Early Morning" won honorable mention in animal class, and "In the Harbor" won the cup in the river and harbor class. "Summer Days" was awarded honorable mention in the genre class. Five of the sixteen prizes went to Mr. Berger's collection.

T. Birdsall entered four, not for competition. His "Landscape" is perhaps the best shown. It has all the quality and effectiveness of an etching



A MARINE SUNSET

First Prize, Marine, Oregon Camera Club Exhibition

By J. A. HARAN

by a master hand. The open-air effect is strongly marked, and the only fault that can be found is a slight hardness or loss of atmosphere in a distant line of trees at the horizon. His "A Wave" is also very telling in treatment. S. H. Brainard shows three, of which "Autumn" is the best. "Winter" has a good swing in the leading lines; but "Duck Pond" shows trees in middle distance entirely too strong. Dan Ellery shows only portraits, "D'Artagnon Donald Bowles" being the strongest. One of his most pleasing productions is marred by a fine hand being amputated by the corner of the picture space. Mrs. Dunn shows two animal studies, one of which is decidedly weak as to foreground and the other too crowded, although both are fine in all other respects. E. N. Fairchild shows six. His "Reflections" is a subject worthy of a brush, but spoiled by white paper sky and water. "Evening" is good

except for a mass of black in the lower left corner that is displeasing in form and texture. Nelson Gammans shows three very fine snow scenes, "Crescent Cravasse" being a perfect rendition of ice and snow. Hugo B. and Milton P. Goldsmith are represented by a large and interesting collection of Chinese studies and sunset effects, marked "not for competition." All of them are good and of strong human interest. Otto K. Hagel shows one portrait that is good and easy as to pose.

J. A. Haran won the Judd cup with his entries; first and second prize portrait, first prize marine and first prize genre. This last, "The Blacksmith," is one of the finest portrayals of this rather hackneyed subject that



LOST

First Prize, Animal Study, Oregon Camera Club Exhibition

By HENRY BERGER, JR.

we have ever seen. There is a force and action that only such a model as Mr. Haran was fortunate enough to secure could make possible. His "Indian Head Study" is a trifle too flat, but easily the best portrait in the room. His only distinctive failure is "Portrait—Miss M.," where a charming subject and most admirable treatment have been spoiled in an attempt to vignette away a portion of the bust sadly needed to complete the balance of the lines.

L. C. Henrichsen shows several of his characteristic landscapes, "A Misty Morning at Tillamook Head," being the best. C. H. Hoeg shows six, all of good quality, winning first landscape prize with "The Calm Before the Storm," an almost perfect landscape marred only by the sky being a trifle heavy and inclined to come forward. George F. Holman makes an exhibit that attracts more attention than any other in the room. His "Into the Mists" would no doubt have been the finest thing on the walls were it not for a dark rock that rises in the center of the picture space and in the extreme

middle distance, entirely out of key, much darker than the near bank of supposedly the same rock formation in almost the same light. Its texture otherwise is excellent to a degree of perfection. The composition is pleasing or would be with a trifle trimmed from the right to bring this dark rock out of the center, after lowering its tone. "The Brain Storm" is a poster effect, most striking and weird, an ambitious effort that would have scored the full number of points had the judges been allowed a class for such work. "Startled Sheep" is perhaps the best of the many sheep studies shown; it is most pleasing in arrangement and quality. An impressionistic effect failed to appeal to the judges on account of its being a trifle flat and because the lighter foreground and light sky at the top tend to throw the distance forward. "A Sea Tale," a small picture entered in his "Short Stories," is no doubt one of the best things in Mr. Holman's exhibit, although not even entered for competition in any class. Ten were entered for the Judd cup only, and this will explain why no awards fell to Mr. Holman's lot.

I find my space is filling all too rapidly, and must therefore be more brief. Herbert Hussock shows two interesting studies. L. W. Jones has four, not for competition, "Landscape" being the best. Dr. A. F. Knoder shows five, also not for competition, of which "Grazing" is the best. J. D. Leonard is represented by but one; Mrs. McClelland shows two fine portraits and F. H. McClure three good examples of child portraiture. J. C. Michaels has two, his portrait showing too little flow of line for a female figure. Albert G. Myers has six, of which "Baird's Hollow" is perhaps the best, although the blacks are all too solid. C. J. Nougues has two. F. Phillippe, in his "Alkali Flyer," has one of the best things in the exhibition. It is only marred by the insistent whiteness of the wagon cover that is out of key with the rest of the picture. W. H. Purdy shows two, the "Portrait" needing only more suggestion of a window to make it very fine. J. V. Reid shows six that, aside from an attempt to introduce color, are excellent. "The Dreamer" suffers only from a bad mass and insistent line formed at the back of the head by the hair. "The Bathers" is a telling effect, somewhat injured by having the figures watching the camera.

A. H. Ruedy shows quite a collection, twelve in all. "A Canyon Scene" is the best, while "To Show That the Earth Is Round" is a very striking conceit. The subject chosen for this last is exceptionally well suited to the idea, and the idea itself is perfectly carried out. Harry G. Smith has ten, winning honorable mention in the river and harbor class with his "Glow of Evening." "Early Morning" is a very fine landscape that suffers from being a conventional creek scene. W. D. Smith shows twenty; both the cup and honorable mention going to him in the still life class for excellent fruit studies, and the cup in the flower studies class. His "Old Basket Maker" is also very good.

H. J. Thorne has nine, winning second prize in landscape class and first prize in flower studies. J. J. Tyrrell shows four; F. W. Vollmann, two; E. D. Whitney, four; R. Zehntbauer, two, and A. H. Zinsley one. Mr. Tyrrell's work is effective and well handled. Mr. Vollmann has secured a fine effect of vastness combined with a stereoscopic relief in his "Top of Mount



ALKALI FLYER
Oregon Camera Club Exhibition

By F. PHILLIPE



THE GLOW OF EVENING
Oregon Camera Club Exhibition

By HARRY G. SMITH



PEACHES

First Prize, Still Life, Oregon Camera Club Exhibition

By W. D. SMITH

Jefferson." Mr. Whitney shows a keen appreciation of planes in his landscapes, and easy poses in his portrait work. Mr. Zehntbauer has been unfortunate in his selection of printing medium, the high lights being too hard. Mr. Zinsley secures good quality, but the composition could be improved in the example which he shows.

A word as to the judging, if one of the judges may be pardoned for commenting upon the subject. The work was entrusted to Professor Richard Max Meyer, a well-known portrait and landscape artist of Portland; C. Elmer Grove, a leading professional of the same city, and Fayette J. Clute, editor of "Camera Craft," San Francisco. The pictures were so hung that the judges could not distinguish where one worker's productions ended and another's began; the only identification marks being the catalogue numbers. A printed list of titles with their corresponding numbers was furnished them, but the names of the exhibitors were not inserted as in the catalogue which had not then left the printers. After a general survey of the room the judges decided upon a plan that they believed would prevent all danger of even unconscious unfairness and one that would at the same time be instructive to the workers after the work of judging was finished. The plan decided upon was as follows: Each of the three judges, working independently, made a list of the pictures by number, following each with a rating based on a possible five points for subject, ten points for technique and twenty points for artistic quality. By so doing, a picture having the full marking for subject and technique, but a low one for artistic quality, would not be able to score above one with a high marking only for artistic quality. At the com-

OREGON ROSES
By H. J. THORNE
First Prize, Flower Study
Oregon Camera Club
Exhibition



A MAID OF THE WILD
By J. A. HARAN
Copyrighted 1905
First Prize, Portrait
Oregon Camera Club
Exhibition

pletion of this marking, the totals of the three judges' markings were added together for each picture in detail, giving the average markings for the three judges on a possible fifteen points for subject, thirty points for technique and sixty points for artistic merit. These totals were placed opposite the numbers of each picture on the list given the judges; the list, employing imaginary numbers and titles, looking something like this:

278	The Sheep Pasture	9	25	40
279	Landscape	12	12	15
280	Portrait	15	30	10

A copy of this list covering his own pictures is to be given each exhibitor. As can be easily seen, the markings serve as a criticism of each picture; and, granting that at least the writer's two collaborators be the capable judges that they certainly are, each worker can form a good opinion as to just which of his pictures are strongest and on just what points their strength or weakness hinges. I have asked the President, Mr. Tyrrell, to advise me, now that the exhibition is over, the general opinion of the club as to the merits of this method of judging, knowing that there has been dissatisfaction in the past. He writes that the exhibitors are pleased with the plan adopted and also with the results. I have done this also for the reason that other clubs holding competitive exhibitions might be interested in the matter.

The Best Work

A man or woman in public or in private life, who ever works only for the sake of the reward that comes for the work, will in the long run do poor work always. I do not care where the work is, the man or woman who does work worth doing is the man or woman who lives, breathes, and sleeps that work; with whom it is ever present in his or her soul; whose ambition is to do it well and feel rewarded by the thought of having done it well. That man, that woman, puts the whole country under an obligation.—John Ruskin.

Creative Power

It is significant that the men of creative genius are, as a rule, men of the greatest productive power. One marvels at the magnitude of the work of such men as Michel Angelo and Rembrandt, as Beethoven and Wagner, as Shakespeare, Balzac, Thackeray, Carlyle, and Browning; not discerning that, as these master workers gave form and substance to their visions and insight, the power to see and understand deepened and expanded apace with their achievements.—Hamilton Wright Mabie.

Simplifying Printing

By JOHN H. HOLBROOK

The photographer, amateur as well as professional, soon finds that by the selective use of various grades and makes of papers, particularly in the gaslight or developing emulsions, he can secure good prints from a wide range of negatives. This knowledge too often leads him to disregard the convenience of having his negatives of a fairly uniform quality. As a result, the photographer is almost sure to find himself stocked up, after a short time, with a large collection of odds and ends of papers that have been procured to meet the demands of faulty negatives, and as long as these same negatives of varying quality are in commission, his troubles will continue. This condition of affairs is both expensive and annoying, as the paper is constantly deteriorating, and one is never quite sure that the supply on hand at the moment contains the particular grade and size that is wanted. Again, one may be at a distance from his base of supplies, or require a certain grade that is not obtainable at the stock house. A large and varied supply may be at hand, and yet the order for prints must be turned out in an unsatisfactory manner. One can easily see how desirable would be a method of work that overcame all this.

This brings us to the foundation, the negative. By timing exposures and regulating development according to the light and the subject, practically all ordinary exposures can be made into negatives suitable for one particular grade of paper. To secure this most desirable condition is by no means difficult. All that is required is a little care and the use of very simple means of controlling the results. It is true that a little inconvenience is involved, but my readers will agree that it is much less trying to spend a few moments modifying the developer or determining the right exposure, than it is to spend days or even hours trying to secure a supply of the particular paper demanded by a negative of wrong quality. Even when the assortment of papers can be easily maintained, the accumulation of various grades and sizes is undesirable if it can be avoided.

The paper to be used regularly must be decided upon, and in this the surface most popular with one's patrons should prevail. The grade selected should be such a one of developing paper that the same negatives will give a good, deep print on printing-out paper. This decided, a method of exposing and developing to secure the desired results, and secure them under varying conditions, must be formulated. The subjects will be either contrasty, medium or flat. In order to secure a medium dense negative, without hardness, in the case of the contrasty subject, a softening of the high limits in the subject will be necessary. This calls for as large a stop as the subject will permit, and full, even slight over, exposure. The developer should be one containing two agents of different working quality, such as metol and pyro. Summing up the requirements of our exposure on the contrasty subject, we find that we want a medium soft working de-

veloper; yet one not too soft working, as we have given slight over-exposure. We therefore, mix, just before using:

Water	4 ounces
Metol	4 grains
Sulphite of soda, dry	25 grains
Pyro	5 grains
Carbonate of soda, dry	20 grains

Develop to a medium dense negative, being careful to carry it to a point where the image will not fix out thin in the fixing bath. This can be learned by experience. Should a change in the developer seem advisable make the alteration, although it should not be difficult to secure a well balanced negative, such a one as will suit the paper perfectly, using this developer and removing the plate from the solution when the right degree of intensity is reached.

The medium or normal subject will require a normal exposure and normal development in a normal solution. A medium stop will conduct to the results desired, but a small stop and its attending increase of contrast can be employed by slightly increasing the proportional long exposure. The effect of a large stop can be neutralized by a slight shortening of the necessary time of exposure. The developer should be compounded as follows:

Water	4 ounces
Metol	3 grains
Sulphite of soda, dry	25 grains
Pyro	8 grains
Carbonate of soda, dry	30 grains

Carry development in this solution to a normal density as before. Our flat subject requires treatment antithetic to that recommended for the contrasty subject. A small stop and the avoidance of any over-exposure. The small stop tends to sharpness and contrast, and correct exposure gives control in development. To bring out a medium printing negative this solution is recommended:

Water	4 ounces
Metol	2½ grains
Sulphite of soda, dry	20 grains
Pyro	9 grains
Carbonate of soda, dry	30 grains

Development should be carried to such a point that good strong high lights are assured. The sulphite is reduced to give a slight stain.

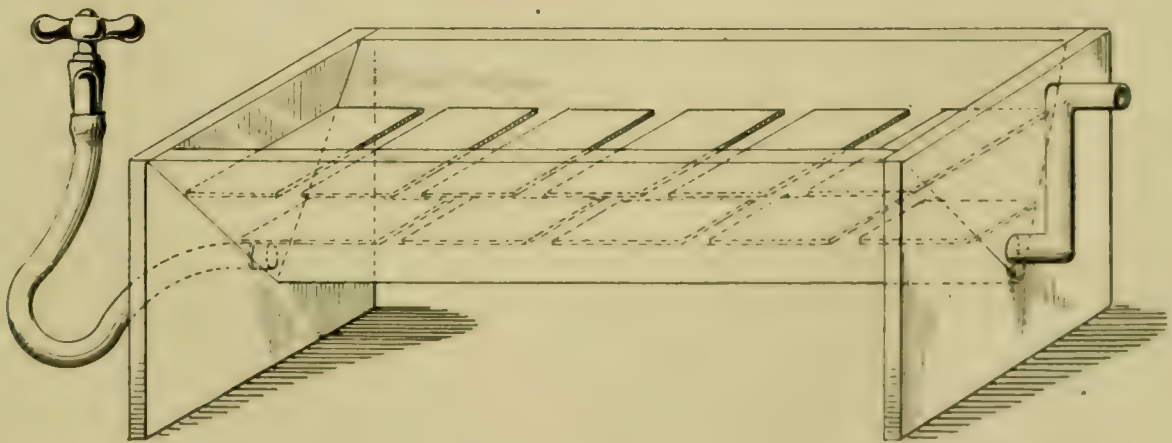
These negatives should all give good prints from the same grade of paper, as before suggested. The formulae given can be altered to suit the individual requirements of the worker, if this be necessary. Should it be

decided to use some particular paper for regular work; one requiring negatives either softer or harder than those for good prints on printing-out paper. Working along these lines I have almost done away with my stock of old paper in different grades, and I am now reasonably sure of results, even when time is limited or the facilities for securing supplies are not of the best. To those who are not following this or some similar method I can safely advise a trial along these lines. The convenience and satisfaction will well repay them for a little time and trouble spent in working out a method suitable to their requirements.

A Simple, Effective Washer

By C. A. HARRIS

Having derived much profit and pleasure from the perusal of the papers upon subjects of photographic interest from the pens of "Camera Craft's" many able contributors, it has occurred to me that I might reciprocate with a suggestion that might appeal to others like myself who enjoy making, as far as practicable, the little conveniences necessary



in photographic work. While I have no reason for thinking the idea is new, I can safely claim the merits of simplicity and efficiency for the plate washer which I shall describe. As can be seen from the sketch, it consists merely of a V-shaped trough with the end pieces square to furnish a support. It should be made of sufficient dimensions to accommodate the sizes of the plates being used and a few coats of some good waterproof paint will make it practically indestructible. If for 5x7 plates, the sides should both measure 30x7½ inches and be joined together at right angles at the bottom. It will be noticed that the water enters the washer through a piece of hose attached to the tap and fitting over a short piece of pipe in that end. After passing through the washer it leaves through a siphon formed of piping at the other end. This insures

a constant supply of water in the washer at a level of the upper bend in the outlet pipe. If this pipe is made a trifle larger than the inlet, there will be no danger of an overflow, although, using the washer in a sink as I do, an overflow along the sides would not matter. The plates are placed in the washer as shown with their film sides down. This is an advantage as there is no possibility of dirt or grit settling upon the soft gelatine film and becoming imbedded therein. By placing one row of, say, 5x7s lengthwise and another crosswise, the trough can be made to hold quite a number of plates. Instead of the water pushing the dense hypo solution against the plates and then out over the top, as in many forms of washers, this simple device gives the plates a constant soaking in fresh water in such a position that the hypo falls to the bottom, where it is carried off through the outlet pipe. Consequently, the washing is quickly and thoroughly accomplished. It is a good plan to have the outlet pipe turn on a joint where it leaves the trough, so that it can be turned down and allow the washer to empty without removing the rubber pipe at the other end.

The Wider Outlook

Behind every trade and occupation there are the most intimate human connections; beneath every trade and occupation there are deep human relationships; and it is only as we discern these fundamental relations and connections that we get at a true conception of the magnitude of the practical activities of society and of their significance in civilization.

The man who treats his trade as mere opportunity of making money without taking into account the service of that trade to men or its relation to the totality of social activities is as truly anti-social in his spirit and methods as an anarchist.

He who is to win the noblest successes in the world of affairs must continually educate himself for larger grasp of principles and broader grasp of conditions.—Hamilton Wright Mabie.

Imagination

By imagination the architect sees the unity of a building not yet begun and the inventor sees the unity and varying interactions of a machine not yet constructed, even a unity that no human eye ever can see, since when the machine is in actual motion, one part may hide the connecting parts and yet all keep the unity of the inventor's thought.

By imagination a Newton sweeps sun, planets and stars into unity with the earth and the apple that is drawn irresistibly to its surface and sees them all within the circle of one grand law.

Science, philosophy and mechanical invention have little use for fancy but the creative, penetrating power of imagination is to them the breath of life and the condition of all advance and success.—"The Printing Art."

Not Dogmatic

Article II.

By RALPH MARTIN

The things that we know are, of course, not essentially true just because we feel a sensation that we suppose to be a clear indication of knowing something. That funny feeling in the head may be pathological and not psychological—it can be simulated; sufficient hashish or its equivalent will produce similar cerebration and the mental observation will be of probably purely figmentary facts, wherefore I take it to be safe for me to make such observations as I may make from time to time in this magazine, under a disclaimer of dogma.

The gentleman who, under date of August 3d, last year, in the "British Journal of Photography," produces the following paragraph, seems to be at least as willing as I to dodge the charge of being dogmatic. Perhaps he had that funny feeling in the head, as aforesaid, and such as I have now, but it was not accompanied by my tendency to volunteer information and explanation.

"FOGGING OF UNDER-EXPOSED FILMS:—It is difficult to understand why there is a greater tendency for an under-exposed or an unexposed plate to fog than for one which has had the normal or full exposure. Yet that such is the case we have noticed over and over again, and no doubt every observant worker has experienced the same thing. It might be argued that an unexposed plate fogged through undue exposure to the light of the developing room, or that in some way it had been fogged in the camera by stray light. But it is quite possible to take suitable precautions to avoid either stray light or unsafe dark-room light and still observe the phenomenon. We have developed six or eight quarter-plates exposed in a hand camera, placing them all in one dish, applying the developer and covering the dish. A plate accidentally unexposed or taken fresh from the plate-box and placed amongst the exposures will, at the expiration of five minutes' development, usually show a fairly thick veil of fog, while the whole of the exposed plates may have produced negatives quite clean and bright. It has been suggested that this fogging only occurs with plates which have a predisposition to fog, but we have noticed it with clean working plates of moderate speed. A somewhat similar phenomenon has also been brought to our notice recently in the case of testing emulsions by the Hurter and Driffeld system. A series of strips when developed with the standard pyro developer had a distinctly high fog reading, but plates coated with the same emulsion exposed in the camera were as clean and as brilliant as could be wished."

What we actually know about the above is that it is a statement of the observation of a phenomenon that has been reported by so many different observers that it can be accepted as a fact. It is therefore a fact that an unexposed dry plate fogs more rapidly than one that has been exposed in a camera under normal conditions.

As a possible explanation of this phenomenon, let us imagine that the

developing solution is a body of flood water, and the dry plate its retaining wall. Further, that the flood water is voluminous and weighty enough to destroy the retaining wall. The wall is perfectly homogeneous and the wearing on it is evenly distributed. It wears away slowly, but the wearing is uniform over its whole attacked surface.

Now, suppose that at some time before the flood water reaches it this wall has been bombarded and cannon balls have been driven into it just short of complete penetration. When now, in its weakened condition, the flood water makes its attack, the holes made by the cannon shots will mark the points where the wall will first succumb. If the volume of water is not too great and the main wall is strong enough, the water will all escape through the shot holes, but if otherwise, the whole wall will go, shot holes or no shot holes.

All of this, as will be noted, calls for a supposition of unusual conditions, but not of impossible ones.

When the dryplate is bombarded with light rays through the lens and camera, ray holes may be imagined to be driven into its substance, even though we have not yet discovered how to make direct observation of them. When the flood water of the developer attacks it, it is equally easy to imagine that the ray holes receive the brunt of the first attack, and further, to deduce that since the attack continues for a considerable time to be concentrated at the points of these possible ray holes, that while so engaged, the developer is inert at all other points on the dryplate. Hence, the clear, acute lines of demarcation that spell contrast on a properly exposed and correctly developed negative.

Photographic development is a chemical operation, and chemical students are aware that many if not all chemical reactions are selective, where, at least, the re-agents are complex—one set of affinities being fully satisfied before the set that is next in order of importance receives any attention.

A simple example of this selective action may be adduced in the well known procedure of silver nitrate solution when submitted to the attentions of a bevy of chloride, bromide and iodide affinities.

The iodine salts of silver are the least soluble of the halogen series, and, therefore, the first salt formed in such a mixture is iodide of silver. Iodide of silver is formed up to the whole of the iodine that was presented, before any bromide is formed; and all of the bromine is used up in the combination before any chlorine gets action.

In the development of a properly exposed plate then, reasoning by analogy, it is fair to suppose that the whole energy of the developing agent is concentrated at the exact points attacked by the light rays until normal action at those points is complete, after which time the reaction becomes general and we have general fog.

As the developer has no special point at which to begin work on an unexposed plate, its action is not hampered by the necessity of specializing and general fog results in a comparatively short time.

If the above solution of the problem is not the correct one, it is a plausible one, and the general public is hereby permitted to use it until a better is found.

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FAYETTE J. CLUTE, Editor and Proprietor

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Our Competitions

While a number who wrote us concerning the proposed plan for a competition advised in favor of cash prizes, a few others wanting material and books of a photographic nature, and three were desirous of having medals or plaques, the large majority favored the plan outlined in our last issue. We have therefore decided to adopt that plan, the number of prints being distributed each month depending upon the response that is made to our announcement. The subject for the first competition will be a simple landscape without figures. In other words, we wish to clear the way right at the start of a class of subjects that all have photographed, namely, that type of landscape in which the camera is pointed more or less directly up a small stream, roadway or path; the kind of landscape that has foreground, middle distance and distance. As a first prize we will give a picture, "Salt Meadow Creek," by William T. Knox of New York; a picture that is said to be one of the best landscapes in the Fourth American Salon. It will be reproduced next month in connection with our report of that exhibition. In order that our foreign subscribers may have time to send pictures, the closing date will be January 31st. The subject for the second competition will be street scenes, with figures; the kind of picture you can make in the nearest town, be it ever so small; the kind we all have in some shape or form. This competition will close a month later. The third will have for its subject home portraiture with an adult as the subject; closing March 31st. Other subjects for following competitions will be announced next month.

There will be no restrictions, no coupons and no withholding of awards. The judging will be done fairly and by competent men whose names will be given later as their consent to serve is secured. The prints should be mounted as appropriately as possible and the maker's name and address, together with title and data as to date, plate, stop, exposure and the like, should be on a slip lightly attached by one end to the back of each print. For the benefit of our new readers we quote from our last issue:

"The first prize to be a picture of acknowledged merit, by some photographer who is a leader in the class of work decided upon as the subject for that particular competition. The second prize to be the picture submitted by the winner of the first prize; the third prize to be the picture winning the second prize, and so on, down the list. This will give each worker, except in the case of the first prize winner, a chance not only to see, but to possess,

the picture which the judges consider a little better than his own. We may, if possible, include a note with each picture going to a prize winner, setting forth in just what particular the judges considered the prize picture sent better than the picture which won it. A dissatisfied competitor would then have only to submit a new copy of his own picture, together with the picture won as a prize, to some competent critic, in order to satisfy himself that our judges had been as fair and impartial as they will be competent and able. We mention this for the reason that we desire to avoid, above all things, dissatisfaction."

We trust that a large number of entries will be made, as these competitions will be discontinued if the use of space and the trouble involved is not justified by the interest our readers take. We may find it advisable to make slight changes as we proceed, but we can assure our readers that all care will be exercised to the end that the greatest amount of pleasure and profit will be afforded the largest number.

A Year's Subscription Free

We have been filling out files for several of our old subscribers, and, as we have quite a list of back numbers available, we may be able to oblige others, thanks to those who so kindly returned to us copies issued before the fire. However, the first two issues of the magazine, those for May and June, 1900, are apparently unobtainable. We want several copies, and will give a year's subscription for each copy of these two issues that may be sent to us in good condition, suitable for binding. Will you kindly consider this a personal request, and if you can send one or both without breaking your file, do so? Also let us know if there are any of the later issues that we can furnish to complete your own file for certain years.

Autochrome Plates on the Market

Mr. Steadman, writing from the Burlington factory, advised just too late for our last issue, that a large shipment of Autochrome plates was on the way to this country. They will be distributed through the ordinary channels and although this last is not definitely settled, they will be sold at about \$15 a dozen for the 5x7 size. This high price is due to the fact that the manufacturers are unable to supply more than a fractional part of the demand in their own country and are making this shipment only in compliance with a demand that workers in this country be at least allowed to try them, even at a price that would justify ignoring the home demand to that extent by the makers. One of our Coast workers, Mr. Arnold of Del Monte, has exposed and developed a number of Autochrome plates during the week and will give us his experience in the next issue. Now that the plates will be obtainable we shall, in our next issue, give full working directions, supplemented by such information as has been evolved from the practice of the best workers

in England who have used the plates; thus bringing the instructions right up to the present moment for the benefit of our readers. We did not see fit to burden our pages with these instructions until the plates were available and Mr. Steadman avoided details of manipulation in his article in our September issue for the same reason.

Instruction in the Autochrome Process

For the benefit of our readers, we have imported a number of booklets with the above title, the joint work of two thoroughly competent and successful early workers of the process in England, George E. Brown and C. Welborne Piper. "Focus," London, says: "It is a complete manual of the process, giving full and lucid instructions for the manipulation of Autochrome plates, and should prove extremely useful to the many photographers now experimenting in direct color work. Some useful hints on the prevention of frilling, etc., are included, and the section explaining the influence of over and under-exposure is specially valuable." We have a copy of the book pending the arrival of those ordered, and can endorse the above. Send twenty-five cents, and address: Department C, "Camera Craft," San Francisco, and a copy will be sent as soon as they come to hand.

Just to Hear Ourselves Talk

Our Philadelphia contemporary published an original article about a year ago, entitled "Daylight Enlarging with a Pocket Camera." We do not wish to imply that our Philadelphia contemporary does not publish a good many original articles; it does. What we mean is, that the article in question was published originally by it. The article itself contains a strikingly original statement to the effect that a developing solution does not discolor so quickly when used in a glass dish as it does under other conditions. Our Philadelphia contemporary, already characterized by one British editor as "obscure," was naturally supposed by another to have but a limited circulation; and, as the article contained two line-drawings such as are easy of reproduction, the latter reprinted it in his magazine. In due course of time the reprinted article came to the notice of another of our contemporaries on this side, the one in Boston; and, having the endorsement of British editorial approval, was again reprinted. While it is hardly possible that the combined enormous circulations of our Philadelphia and our Boston contemporaries could have left any one ignorant of the peculiar preservative qualities possessed by a glass developing dish, we wish to add our small mite of publicity to the discovery, and at the same time emphasize its importance by recording the flattering endorsement extended it by photographic journals of wide circulation in two hemispheres.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Ozobrome Oil Printing

C. Welborne Piper, writing in the "Photographic News," gives the following instructions for an amended and more rapid process of preparing a pigment print direct from a bromide:

Soak the dried print in water until limp, then bleach it in the following freshly mixed solution:

Ozobrome stock solution... 4 parts.
10 per cent potash alum solution 4 parts.
10 per cent citric acid solution 1 part.
Water, to make 20 parts

When bleached, rinse very briefly under the tap, or dip into a dish of plain water to remove surplus bleaching solution, and then immerse in:

Sulphuric acid 1 part.
Water, to 20 parts.

Leave in this acid solution until the brown bichromated image has disappeared, and only a faint whitish image is left. If in a hurry use several acid baths in succession, until the bath ceases to be stained yellow, otherwise leave the print to soak for about twenty minutes.

Next rinse print well under the tap and immerse it in the following fixing bath to remove the silver bromide image that is left:

Hypo 4 ozs.
Sulphite of soda 1 oz.
Water, to 20 ozs.

Fixing is very rapid, two or three minutes being ample. After fixing wash the print and pigment. Time in washing can be saved if the print is simply floated face down on the hypo solution. Fifteen minutes' washing will then be enough. If the print is soaked in the hypo half an hour's washing should be sufficient, as minute traces of hypo left in the print

are of no consequence. After washing it is well to pigment at once, but if more convenient the print can be dried and pigmented later. Ten to twenty minutes' soaking will be enough before pigmenting. It should be noted that, though the print will pigment very readily after the acid bath and before fixing, yet the fixing is necessary, otherwise the silver image left will rapidly darken on exposure to light. The ultimate image left is a very faint yellow or yellow-green. It is almost invisible, and is quite unaffected by light, at any rate so far as the color is concerned. When the acid bath has acted there is fairly strong relief in the print, enough to be felt when the finger is passed over the surface of the image.

Bromide Intensification and Toning

New methods still appear. Dr. J. Kettle, in the "Amateur Photographer," gives the following method for obtaining more perfect control of sulphide toning:

"It is a common complaint against the sulphide process of toning bromides that it gives too warm or purplish tones. Partial bleaching is, as a rule, unsatisfactory in that the bleachers usually employed attack the high lights first, and if the action be stopped before bleaching is complete in the hope of getting a colder tone, unevenness results. If, however, one replaces the bromide in a ferricyanide bleacher by a chloride, bleaching is exceedingly slow, but perfectly even in action, and may be stopped at any stage, and the print rinsed and treated with the ordinary sulphide bath. Moreover, should the print obtained be not warm enough in tone, it may be washed and rebleached, rinsed and again treated with sulphide. Care must be taken in this case that the second bleach-

ing is not prolonged, as the action is now much more rapid, and it is very easy to overstep the mark. It is better to proceed tentatively, as the process may be repeated if the tone be still too cold. The following is a suitable bleacher:

Potassium ferricyanide 15 gr.
Sodium chloride (common salt).50 gr.
Water 10 oz.

As a rough guide, an average amidol print will require about ten minutes bleaching for a warm black, twenty for a cold sepia, and so on, the ultimate tone obtainable being similar to that of a bromide bleached print. Complete elimination of thiosulphate from the print before bleaching is of the utmost importance.

"With considerably larger quantities of salt, bleaching becomes as rapid as with the bromide bleacher; but there is apt to be loss of detail in the high lights, due no doubt to the solubility of silver chloride in the salt solution.

"It may not be generally known that a print bleached with a ferricyanide bromide bleacher will take on a much colder tone if the sulphide bath be slightly acidified with sulphuric or hydrochloric acid, but the odor of such a bath is very objectionable, and the tones obtained are still purplish, and not in any way comparable to those got by the above process.

"No originality is claimed for this mode of working, but it is certainly not well known among amateurs, and will be found well worth a trial. In my own hands it has given the most magnificent warm-black and sepia tones, without any unevenness or loss of detail, even in the highest lights."

Some time back M. Lemaire published in the "Bulletin Societe Photographie Francaise" the following directions for intensifying bromides:

"While the intensification of negatives is a simple enough operation, and with the usual formulæ gives quite good results, it is very different when the same methods are applied to positive transparencies on glass, or to bromide and gas-light prints on paper. The results then will be found uncertain, and the tones are generally unpleasant. On the

other hand, the following plan will be found to give good results regularly; it has been used for glass positives, for bromide enlargements, and for contact prints, and on the last-named has always given fine black tones.

"The operation is carried out in the following way: The print when finished is immersed in a solution of

Potassium bromide 125 grains
Mercuric chloride 50 grains
Water 5 ounces

and is left therein until the image has almost entirely disappeared. It is then thoroughly washed to get rid of the soluble salts of mercury in the paper, and on this operation in a great measure the success of the process depends, as if the mercury is not completely got rid of, the whites will be permanently stained of a yellowish tint. Owing to the feeble solubility of mercuric chloride in water, the operation of washing is a slow one, but it may be hastened considerably by substituting a solution of common salt for plain water. Under these conditions the mercuric chloride is much more soluble, and is speedily got rid of. Ten or fifteen parts of salt to a hundred of water are used, and three or four baths of this solution are given to the print, leaving it some minutes in each. It is then placed in running water for a short time. The print is then placed in a solution of one part of crystalline sodium sulphide to a hundred of water, a strength which has no action on the gelatine. It is left in this for twelve or fifteen minutes, and next washed in running water to get rid of the sulphide solution, and is then finished.

The Latest Natural Color Process

Since I first gave a description of the Lumiere colored starch grain process, two others have been announced; both, like the Lumiere method, being dependent on the combination of the light filtering apparatus with the plate. The last to claim attention is of extraordinary interest and if what is reported be substantiated, we may expect more valuable commercial results than those likely to accrue from the Lumiere plate.

The new claimant is of American origin and is to be known as the "Florence

Heliochromatic Plate." The "British Journal of Photography," No. 2471, and succeeding numbers, has given very full particulars of its nature and prospects. Thence we learn:

"There is to be shortly available a new screen color plate which is a further development of the original Joly linear method, but embodies advances of such importance in this latest of color photographic systems that an account of what has been accomplished appears to be called for. It is scarcely necessary to explain that the Joly process, as it has hitherto been known, consists in the use of a filter of fine ruled bands, alternating red, green, and blue, which is placed against the sensitive surface of a panchromatic plate, and exposure made through it. From the color-record negative thus obtained a positive is printed by contact on a transparency plate, which positive transparency, on being bound up in register with a ruled screen, similar to that used when making the exposure, reproduces the color of the original object. It will be within the recollection of many persons that this system, as first worked out by Professor Joly, of Dublin, and afterwards by the late Mr. MacDonough in America, proved capable of being easily employed once the screen plates had been produced, but that the regular manufacture of the screens on a large scale proved a task beyond the powers of both the commercial undertakings which were formed to work the process. Moreover, even with a perfect screen, there were certain obstacles in the way of absolute certainty—chiefly the difficulty in securing uniform contact between the screen and the sensitive plate in the camera—which limited the application of the process in practice. It has been left to Mr. John H. Powrie and Miss Florence Warner, of New York, to successfully combine the screen with the plate, to perfect the manufacture of the screens, and to introduce important developments of the process which enormously increase the possibilities of the one-plate linear color screen. In short, to briefly anticipate what we have to describe, the Warner-Powrie pro-

cess, as it is to be called, (1) combines the linear screen with the plate, forming a "screen plate" ready for exposure, at a price which, we are informed, will not be much greater than that of ordinary plates; (2) provides means of duplicating the color results; and (3) permits of a set of full-tone negatives, that is without the linear ruling, being prepared from the single negative, from which set prints of paper by the Pinatype or other process can be prepared."

Then follows a full description of the method by which the screens are made, of colored lines printed from a grating ruled to a fineness of from one-sixth-hundredth to one-one-thousandth of an inch, and also of the clever printing device used at a later stage. Finally the writer says: "It would be easy to pooh-pooh the Warner-Powrie process if the claims of its promoters were unsubstantiated by results. In fact, the almost sensational character of certain of the methods would justify such a prejudiced frame of mind. But the proof of the pudding being in the eating, it is not possible to dismiss this development of the Florence Heliochromatic Plate lightly. It has been our privilege to examine a large collection of the screen-plates used in the process and a large number of the results. These latter consist of the original screen-plate negatives (in the colors complimentary to those of the original), positive transparencies in color printed from them by contact in a printing frame without any registration and having all the colors of the original, and sets of continuous tone color-sensation positives made from the original screen-plate negatives by the process which we have already described. The last, though without color, and though differing in no visible way from an ordinary positive transparency, were, to our thinking, the most triumphant proof of the working quality of the Warner-Powrie process."

And the expectations here indulged in have since received endorsement from such sound practical technicians as Mr. Wall and Mr. Newton.

Club Notes

Wisconsin Camera Club Program

Tuesday, November 5th, Illustrated Lecture, "Hunting With the Camera," Prof. H. L. Ward. Tuesday, November 12th, Lecture and Demonstration, "Home-made Printing Papers," Bernard C. Roloff. Tuesday, November 19th, Lantern Slide Exhibit, Lantern Slide Committee. Tuesday, November 26th, Lecture and Demonstration, "The Coloring of Photographic Prints," J. Harry Taylor. A roll of Royal Bromide Paper will be given as a prize for the best enlargement, made with club's new apparatus; contest closes January 7th, 1908. Each member is requested to make five pictorial slides to compete in the coming Lantern Slide exchange, having them ready November 21st, 1907. The initiation fee is now one dollar. Print contest closes November 1st, 1907.

C. C. C. Notes

An illustrated lecture on the last eruption of Vesuvius was given before a crowded house by Dr. Gustav Eisen on Friday evening, October 18th, at Christian Science Hall, under the auspices of the California Camera Club. The slides, beautifully colored by the lecturer, vividly depicted the great eruption in its many phases. The doctor was fortunate enough to be present during the most violent period of the disaster.

The annual benefit entertainment of the Club was given at the same hall on Tuesday evening, October 22nd. About 250 slides were shown, the subject being: "The Camera Club in Yosemite." The lecturer, President Albert Le Breton, was most entertaining. The pictures which were made by the members on their two outings to the valley in June and July were greatly enjoyed. The program was varied by music, comedy and moving pictures, and gave general satisfaction,

as attested by the liberal applause. The attendance was very large.

The two hundred and fourth illustrated monthly lecture of the Club was given at the same hall on Friday evening, November 15th, and was entitled "The Wonders of the Colorado Desert." A full account of a trip down the overflow of the Colorado River to the Salton Sea was included. The lecturer was the well known traveler and writer, George Wharton James, who handled his subject most admirably. A large and appreciative audience was present.

Fourth American Salon Jury Selections

The final jury on choice of pictures to be hung in the Fourth American Salon, held its second sitting and completed its work on Friday, October 18th. Two hundred and thirty-nine pictures from the United States, Canada, England, Germany, Italy, Mexico, Hawaii and India were chosen from a vast number submitted.

It is said that there are a few which are even better than anything which appeared in last year's salon, and that the general average is slightly higher. The salon will open this season, under the auspices of the Pen, Pencil and Camera Club, at the amphitheater of Duquesne Garden, Pittsburg, Pennsylvania, from November 3rd to 18th, after which it will start on its itinerary to the principal cities of the country.

Following is a list of those who were so fortunate as to have their work accepted, each name followed by the number of pictures passing the jury:

Gertrude Aitchison, England, one; George Alexander, Chicago, three; Louis V. Allen, Akron, Ohio, one; C. E. Bailey, Los Angeles, two; Mrs. G. A. Barton, England, one; Lucio Benedettelli, Italy,

one; Henry Berger, Jr., Portland, Oregon, three; Katherine Bingham, St. Johnsbury, Vermont, one; A. H. Blake, England, three; D. H. Brookins, Chicago, six; Will S. Brodhun, Wilkes-Barre, two; Edward Brown, St. Louis, three; R. Buchanon, Hawaii, one; Dr. C. George Bull, Alameda, California, three; George Butler, Worcester, Massachusetts, one; Guiseppe Castruccio, Italy, ten; Clarence K. Chamberlain, Chicago, one; John Chislett, Indianapolis, eight; C. W. Christiansen, Chicago, three; C. F. Clarke, Springfield, Massachusetts, three; Winfield S. Clime, Washington, three; Richard M. Coit, Brooklyn, one; Flora M. Colman, New York, one; Dwight A. Davis, Worcester, four; J. R. Daniel, Chicago, one; Fred R. Dapprich, Chicago, one; Benjamin W. Douglass, Indianapolis, one; Rudolf Duhrkoop, Germany, thirteen; Sigurd Edling, Milwaukee, one; Gustav Eisen, San Francisco, seven; William S. Ellis, Philadelphia, one; George C. Elmberger, Chicago, three; Pierluigi Erizzo, Italy, two; Nino Ferrari, Italy, three; Avery E. Field, Lowell, Michigan, one; Louis Fleckenstein, Faribault, Minnesota, five; E. G. Fountain, Cleveland, two; Wilfred A. French, one; S. L. Gates, Chicago, three; T. E. Gotham, East Liverpool, Ohio, one; M. Govindasawmynaidw, India, one; H. Hendrickson, New York, one; W. A. I. Hensler, England, three; Alphonse Hirsch, San Francisco, one; E. T. Holding, England, one; Mrs. Sarah Holm, Chicago, two; Stockton Hornor, Concordville, Pennsylvania, two; Frank E. Huson, England, two; J. F. Jones, Toledo, Ohio, one; P. S. Joshi, India, one; Fred Judge, England, four; R. F. Kaufmann, Wilkes-Barre, one; Lee Hamilton Keller, New York, one; S. G. Kimber, England, one; William T. Knox, New York, three; B. F. Langland, Milwaukee, one; Lewis Lloyd, England, one; Ralph W. Magee, Washington, two; Dr. Cesare Martini, Italy, four; H. W. Minns, Akron, Ohio, two; B. J. Morris, Chicago, one; W. H. Nithdale, England, one; Irving K. Parks, Athens, Pennsylvania, two; Misses W. and G. Parrish, St. Louis, three; Mrs. W. W. Pearce, Waukegan, Illinois, one; William H. Phillips, East Liverpool, eight; C. Nye Pickering, St. Louis, one; Emily Pitchford, Berkeley, California, two; R. C. Lanche, Sherbrook, Canada, two; Henry

Ravell, Mexico, three; William A. Reinheimer, St. Louis, two; J. G. Ruggles, Chicago, three; Edward F. Ryman, Wilkes-Barre, seven; Dr. George H. Scheer, Sheboygan, Wisconsin, two; R. L. Sleeth, Jr., Pittsburg, eight; Arthur Smith, England, one; Clinton J. Spencer, Chicago, one; H. Y. Summons, England, two; C. O. Thurston, Wilkes-Barre, two; Charles E. Townsend, San Francisco, three; Edith H. Tracy, Plainfield, New Jersey, one; F. M. Tuckerman, Chicago, one; James E. Underhill, New York, two; A. W. Walburn, England, one; Robert E. Weeks, Chicago, four; Josephine Dyer Weymouth, Washington, three; Mrs. Eleanor W. Willard, four; Fannie Williams, Chicago, one; Dr. Walter H. Winchester, Sheboygan, five; Frank G. Wood, Milwaukee, one; William H. Zerbe, Richmond Hill, New York, two; and Dr. W. F. Zierath, Sheboygan, six.

"Camera Work"

Number 20 of this handsome quarterly is at hand and more than sustains its record as the finest photographic publication issued. It contains ten large photogravure plates reproducing characteristic examples of the work of George H. Seeley, Alfred Stieglitz and W. W. Renwick, in addition to the usual amount of the best of informative text, this time mostly devoted to color photography and the new Autochrome plate in particular. Despite the fact that yearly subscriptions are six dollars, the publication is worth many times its cost to the earnest worker who desires to keep in touch with the best in photography and particularly its artistic and pictorial side. It is published by Alfred Stieglitz, 1111 Madison Avenue, New York, to whom all remittances should be sent.

A Set of Slides

The Folmer & Schwing Company have gotten together an interesting and instructive set of lantern slides that they are prepared to loan to Camera Clubs and the like. A wide range of subjects are included, many of them such as are only possible with the Graflex form of camera. Address, Folmer & Schwing Co., Rochester, N. Y.

The Amateur and His Troubles

By FAYETTE J. CLUTE

To Prevent Prints Curling

A platinum print has little or no inclination to curl, for the reason that the sensitizing of the paper does not involve the use of an emulsion of gelatine as does the manufacture and coating of bromide and gaslight or developing papers. Any paper coated with a gelatine film will show a tendency to curl, as it is subjected to change from dry to damp weather. If three ounces of glycerine, four ounces of alcohol, and one ounce of water, are mixed, and the prints given an immersion in the resultant bath, after the final washing, there will be much less inclination on the part of the prints to indulge in curl and contortions.

Alcohol-Rubbing Reduction

A correspondent has been having trouble through trying to rub down some over-dense portions of his negatives as directed by a writer in one of the annuals. The fault lies not so much with the writer, he quotes, as it does with our correspondent's failure to understand the action of the alcohol. The alcohol, despite what writers may say, can hardly be credited with any hardening effect upon the dry gelatine film. It simply prevents polishing by the rubbing and consequent cessation of the reduction in density. The film of the negative should be perfectly dry, and the alcohol absolute. Water in either will result in the film being rubbed up and damaged instead of being gradually worn down. The position of the chamois skin should be changed on the finger from time to time, so as to bring a clean portion into play. That is about all there is to the matter. It is simply the reduction of too dense portions of a negative by wearing away the black deposit through abrasion, applied with the forefinger covered with a piece of chamois skin moistened in alcohol.

Reducing Intensified Negatives

A correspondent in Iowa wants to know if he can safely reduce some negatives that have been over-intensified by the mercury and ammonia method, and how to go about it. He can do so in several ways, all of them working evenly and slowly. The negatives should be immersed in one of the following solutions until the desired effect is secured, and then well washed and dried: Make a solution by dissolving one and one-half grains of cyanide of potassium in each ounce of water required. Dissolve forty-eight or fifty grains of sodium sulphite in each ounce of the water required. Dissolve from four to eight grains of hypo in each ounce of water necessary for a bath. There is little choice, although I prefer the first, despite the poisonous nature of the cyanide.

Cutting Openings in Lens Panels

We all have occasion to try a new lens, use one we have borrowed, or something of the kind, and that necessitates a new lens panel. Making a new lens panel is not difficult; a piece of cigar box will answer, or we can build one up from pieces of cardboard. If the lens be smaller than the hole in one of our old lens panels, the work of fitting it becomes simply a question of cutting a hole in a piece of the cigar box wood or a heavy card and gluing or nailing this piece to the old panel. In any case, the cutting of the hole is the troublesome part, unless an obliging friend is handy who possesses a lathe. We have tried to whittle out a hole; chop one out with a chisel and hammer; saw it out with a fret saw, and even borrowed an extension bit and tried to bore out a hole. This last looks easy, but it is almost impossible, unless the hole be a fairly small one and the panel backed up with another piece of wood for the screw of the bit to engage. Even then the work is most tiresome and tedious. Acting upon a hint in one of the English magazines

last Fall, I recently invested in a tool used to cut washers out of leather, a tool that is used in a carpenter's brace the same as an ordinary bit. Kept sharp, it works perfectly in thin wood or cardboard, and should an extra thick lens panel be the subject, it is only necessary to do a little cutting away of the wood to free the blade. The tool costs but twenty-five cents, cuts much more rapidly than an extension bit, and does its work without the latter's inclination to split the panel. In addition to this, the hole has a bevel which is just what is wanted if the tool is used from the back of the panel.

Toned Postcards

A subscriber in New York asks how the commercial photographic postcards of foreign origin are toned. We have it on good authority that the regular hypo-alum process is used. The large bulk of the solution and constant employment to which it is subjected makes it easy to secure uniformity of tone by regular addition of proportionally small amounts of new solution. Using a suitable glossy bromide paper, the tones closely resemble those secured on printing-out papers.

A "Buckle" Brush

This is the name given to a brush made by drawing a tuft of cotton into the end of a glass tube by means of a loop of string. The cotton pulled out and loose strands removed, one has an excellent tool for applying sensitizing solutions and the like to paper or other surfaces. Its cheapness permits of its being thrown away each time, saving the trouble of washing out the solution as one would be inclined to do with a regular camel-hair or badger brush.

To Remedy Dull Bromides

To do away with the occasional dull appearance of a bromide print when dry, it should, after thorough fixation and washing, be treated with a strong solution of gold and sulphocyanide, when a strong, brilliant black is obtained. The print at this stage should be promptly removed and washed, prolonged immersion resulting in purple tones.

Drying Bathed Plates

Answering an Ohio correspondent: The drying cupboard should be of such a size that there is at least four inches between the plates. The use of a good roomy space is conducive of evenness of drying. The temperature should be about eighty or eight-five, not higher. If a good current of air is passed through, the plates will dry in about six hours.

Platinum Combined Bath For Printing-Out Paper

A correspondent in Oregon wants a formula for a combined bath containing platinum that will give him black tones on printing-out paper. The best I can do is to give him the only formula of such a nature that I can find. I could not recommend it from actual trial, and I am doubtful as to the permanency of the results. The prints should be washed in a weak solution of salt before going into the toning bath. The formula is as follows: Dissolve sixty grains of lead nitrate and twenty grains of sodium formate in ten ounces of hot water, and then add one ounce of hypo, sixty grains of alum, and fifteen minims of formic acid. Let stand in a dish for twenty-four hours, and then add two grains of platinum perchloride. It is then ready for use.

Remedy For Metol and Platinum Poison

One of our correspondents, B. W. Adams of Napa, California, writes: "A few months ago you asked for a remedy for metol poisoning and kindred evils. I have suffered severely from metol poisoning and also platinum poisoning during several years, at one time having to give up my favorite metol-pyro developer. I have, however, returned to its use, having found a remedy that is efficient, in my case at least. It is as follows:

Mutton tallow	3 ounces
Flour sulphur	1/2 ounce
Glycerine	1 1/2 ounces
Carbolic acid	30 drops

"The acid should be added last, drop by drop, while the whole mass is thoroughly worked over with a spatula on a clean piece of glass. I use an old 11x14 negative for the purpose. This makes a rather thick salve that should be well rubbed into the hands at least once a day."

Notes and Comment

The Invisible Baby Holder

The "Boston Globe" recently reproduced a number of fine examples of child portraiture shown at the exhibition of the Photographers' Association of New England, and in commenting thereon, said:

"In every photographic exhibition the pictures which attract the most attention are those of beautiful women and children, and probably to most people the latter are the most genuinely interesting.

"Among the thousands of photographs on exhibition at the present time in the halls of Mechanics Building in connection with the Tenth Annual Convention of the Photographers' Association of New England, may be found any number of interesting pictures of children from all over the United States, Canada, England and Germany. In fact, there is such a great variety of them that it is difficult and almost invidious to pick out a few of them for illustration or special mention, for the child in photography, at least, is the one touch of nature which 'makes the world kin.'

"It is the very naturalness, the genuineness of the child portrait, which makes it of such absorbing interest. There is no 'mask' on the expression, it is perfectly natural, and usually healthy and happy.

"But they are not by any means the easiest subjects to be photographed. In fact, they are about the most difficult, for it requires no effort on the part of the photographer to 'stiffen up' even a baby in the study. The trouble is to get them to act natural, and then to 'light' them to the best advantage; to light them in such a manner as will best bring out the child characteristics. Some photographers seem to have the happy faculty for doing this sort of thing nearly every time, while the failures are very numerous and often exasperating to the photographer. Some few make a sort of special study of children, such, for instance, as Pohle of Buffalo, who has invented a sort of wire

holder that fits under the arms of a baby much as its mother's arms would. He has been very successful in photographs of mere babies by means of this device, he says. It is either the device or else the Buffalo babies are very easily coaxed into being photographed in a natural way, for he exhibits some very fine baby pictures."

This piece of apparatus, the Invisible Baby Holder, is manufactured by the Pohle-Werner Manufacturing Company, 9 Chippewa Street, Buffalo, New York. We would advise all our readers to write them at once for their handsomely illustrated and instructive circulars. The reputation of making good baby pictures is the best possible advertisement and business bringer that a photographer can have, and this simple and astonishingly practical device will do wonders in that direction.

Important Announcement

It is a marked step, in these days, for a San Francisco business house to secure permanent quarters, and therefore we take especial pleasure in announcing that we have moved to 154 Sutter Street, just east of Kearny Street, one block below our location before the big fire. If not disturbed by another calamity, we shall remain here for years. The floor space is greater than we ever had before, and the stock of goods will be correspondingly increased.

Besides the regular Bausch & Lomb microscopes, there is a new type just put on the market by our Eastern factory, with a handle in the arm, which is an instrument of the highest excellence. These we hope to carry in sufficient quantities to fill all orders. We are also adding the Bausch, Lomb, Saegmuller engineering instruments, and because of Mr. Saegmuller's national reputation as a maker of instruments of high precision, the superiority of this line will be unquestioned. The stock of sterilizers, in-

cubators, bacteriological glassware, and chemical apparatus, will be much larger than before the fire.

We shall continue to keep on hand the high grade Bausch & Lomb Zeiss and Bausch & Lomb photographic lenses, and also the well-known stereo binocular field glasses. With commodious quarters, an entirely new and enlarged stock, and a location of great convenience, we trust now to be able to give such satisfactory service as the business requires. We shall be glad to see you in person, or to receive your written orders or letters of inquiry. Write for catalogue or prices, and your communications will have our best attention.

Yours faithfully,

BAUSCH & LOMB OPTICAL COMPANY of California.

Addresses: Before the fire: 230 Sutter Street; since: in a flat, at 1629 Geary Street; new and permanent quarters, 154 Sutter Street.

The Eagle Developing Tank

We have recently had the pleasure of giving one of these excellent tanks the benefit of a careful trial and must express our entire satisfaction at its behavior. The rack which holds the plates is adjustable so that any given size of tank will hold the next three or four smaller sizes, the adjustment being instantly made by pushing together or pulling apart the sides of the rack. Used with the Eagle developing powders, correctly exposed plates require twenty minutes at a temperature of sixty-five degrees. Over exposed plates may be removed a trifle sooner and under-exposures allowed to remain somewhat longer if thought advisable. In our own work we removed all of an assorted lot of exposures and found them to average more evenly in quality than we believe they would have done if developed separately in the usual way. The tanks are supplied in zinc and in nickel plate; the former being suitable for development alone, as the fixing bath would affect the zinc. Any suitable developer can be used, and while the Eagle developing powders are excellent, one can easily substitute their favorite agent by diluting it somewhat and then ascertaining the time by a trial. All in all,

the tank is an excellent utility and one that is bound to grow in popularity with the constant adoption of tank development.

Probus in Chicago

We are advised that Burke & James, of Chicago, have secured the agency for Probus, and will fill orders from the territory which they cover, as well as supply the Chicago trade. An article of such merit as Probus Preservative Paint is destined to achieve even a larger sale than it at present enjoys and it has already become impossible for the New York and San Francisco agents to supply the demand as expeditiously as would be wished when points in the Middle West are considered. We can only add our congratulations, both to the manufacturers and the new agents, on this most advantageous arrangement.

\$25 Reward

The following photographic lenses, used by photo-engravers, have been stolen: One Bausch and Lomb Apochromatic process lens, No. 840851, series No. 8; one Goerz Dagor process lens, No. 210,406, No. 7. Notify Ross McKinnon, Chief of Police, Effingham, Ill. October 27, 1907.

The Garo Picture

The handsome picture on page 483 of this issue, is a reproduction of Garo's "Portrait of Miss T." The spectacular picture of the Boston Convention, it was the subject of much praise and some criticism. The print was made on sepia-toned Artura paper, and we are indebted to the Artura Photo Paper Co. for the loan of the magnificent half-tone from which our picture was printed. This picture has a further interest in that it secured to Garo the possession of the Goerz Trophy, which, having been won by him three years in succession, now becomes his property without further contest.

International Photographic Exhibition

One of the most important photographic exhibitions held in Europe will be the one planned to open in Riga, Russian Baltic Provinces, April 19th to 30th, 1908, under the name of the International Photographic Exhibit. It will comprise the following photo-

graphic sections: Art, Science, High-speed, Stereoscopic Views, Color Photography, Transparencies, and Photographic Literature. The following prizes are to be given: Grand Prize, Diplomas, Gold, Silver and Bronze Medals, and Diplomas of Honor. The exhibitors pay expressage to and from Riga. An illustrated catalogue is sent gratis to exhibitors. Further information may be had from the Director: Redacteur O. K. Soldtner, Riga, Russia, Postfach 223.

All exhibits must be in Riga by February 16th, 1908. The photographs may be forwarded either framed or unframed. The latter must, however, be mounted on cardboard, or placed in albums. Transparencies must be sent in a strong package with removable covers or lid. Address all packages by mail or express: Herrn O. K. Soldtner, Suworowstrasse No. 14, Qu. 5, Riga, Russia. Every package must carry the word: "Ausstellung" (Photographic Exhibition).

Every exhibitor pays for space at the rate of 3 rubles (about \$1.50) per meter square, or less. All packages sent must be prepaid. Notices of entries must be in Riga before February 11th, 1908. Photographic clubs or societies are requested to exhibit in block.

Professional Cyko

This paper is being talked about a great deal, because it fills up a gap which has hitherto made it impossible for the professional photographer to use developing-out paper in all his work. It is apparent from the inquiries received by the manufacturers that the dealer does not know what Professional Cyko really is, and what is expected of it. For instance, they receive requests for sample prints on Professional Cyko, whereas, as a matter of fact, a print on Professional Cyko does not differ from the regular blue and yellow label Cyko, unless the prints consist of comparative tests from the same negative. If a photographer makes his negatives according to what is required to produce good prints on developing-out paper, he need not trouble himself about Professional Cyko, as the regular yellow label will yield all there is in the negative. It is only the photographer who makes his negatives to suit platinum paper and expects as good or better prints from the said negatives on developing-out paper

who is interested in Professional Cyko, as no other grade will accomplish that difficult feat. The Professional Cyko emulsion is compounded so as to produce great softness with contrasty negatives without sacrificing brilliancy. Some papers give the impression of softness, but in reality it is flatness—not softness.

A question which invariably suggests itself to the dealer is, "Why should Professional Cyko cost more than the regular blue and yellow labels?" The reason may not be obvious, but the manufacturers announce that it is based on facts. The emulsion has more silver. It contains more gelatine. A slight variation in temperature, as well as in a great many other details not always under precise control, unfits the emulsion for Professional Cyko, and if it does not come up to the standard of softness and tonal gradation, it must be discarded at a sacrifice of the money which it cost to produce.

"Developing and Printing for the Amateur"

The above is the title of a handsome twenty-page booklet of large pages showing illustrations and giving full text description of the developing and printing department at the Eastman Kodak Company's works. It explains their methods of handling this branch of their business most thoroughly, and in doing so gives most valuable information for those who are doing this class of work. In fact, the booklet is gotten out with that end in view, the sub-title reading: "Published for the benefit of those who conduct departments for the finishing of amateur work." It is sent upon request and we would strongly urge all interested to write the Eastman Kodak Company, Rochester, New York, for a copy.

"Enlarging With a Lantern"

The above is the title of a neat little booklet that is being sent on request by Burke & James, 118 West Jackson Boulevard, Chicago, Ill. It explains how simple the process of making enlargements really is, shows the low cost of the necessary apparatus, and lists a number of the firm's superior line of lanterns, stereopticons and accessories. Apparatus

suitable for lantern slide work and the popular postcard outfit are also fully described. The last is enjoying a large popularity with makers of postcards who wish to get out the work in the shortest possible time and with the minimum of expense. The booklet is one that will deeply interest either amateur or professional.

A New Photographic Supply House

Jo. A. Hoerter, for the past seven years associated with Messrs. Burke & James, Chicago, has severed his connection with that firm and has established himself at Louisville, Kentucky, under the firm name of Hoerter Supply Company, handling a general line of photographic supplies, finishing for the amateur, and the like. Mr. Hoerter has been identified with the photographic trade, both as office and road salesman for the past twenty-two years, which will count for a great deal in the new venture, and which will, no doubt, prove to be a well-patronized establishment by the photographic trade in that section of the country.

Catalogue No. 9

We have just received from J. L. Lewis, 376 Sixth Avenue, New York, a copy of their latest catalogue of photographic supplies. It is interesting and well illustrated, covering some eighty pages descriptive of National cameras and other specialties handled exclusively by this progressive house. A copy of their "Photo News" is also to hand. Both will be gladly sent on request and our readers should avail themselves of the opportunity.

An Announcement

September 25, 1907.

To the Trade:

We beg to announce that the Ansco Company will succeed to our business on October 1st, proximo.

The large and rapidly increasing demand for the goods of our manufacture, notably Cyko paper, Ansco films, Ansco cameras and professional apparatus, coupled with the fact that the photo-

graphic dealer practically depends upon us for a supply of the most necessary photographic staples, has made it imperative that our manufacturing facilities be enlarged. This the Ansco Company expects to do as soon as possible.

The name "Ansco" is an abbreviation of our corporate title, Anthony & Scovill, and the new company will have the advantage of our present management and personnel.

Hoping that the trade will appreciate our efforts in its behalf and that it will bestow on the new company the same courtesies that it has extended to us, we beg to remain,

Yours very truly,

The Anthony & Scovill Co.

Two Valuable Helps

We wish to call special attention to our readers that there appears an attractive new announcement among our advertising pages wherein the Northern Photo Supply Co., of Minneapolis, Minnesota, are advertising the Liberty Carbon Spotting Pencil and Liberty Negative Marking Pencil. The above are something entirely new and are beyond a doubt two of the best and most useful photographic articles ever placed upon the market. We have tried both of these pencils and do not hesitate in recommending them to our readers.

Multi-Speed Shutters

New York City, Oct. 31, 1907.

MULTI SPEED SHUTTER Co.,

New York City.

GENTLEMEN:

I would say that I have been much pleased with the work done by both the shutters that I have obtained from you. The work done both by myself and my son, a boy of fourteen years, has been very satisfactory, and results much better than we have previously obtained. Anything I can do that will help you in introducing the shutter to the general public, I will cheerfully do.

Hoping that you are meeting with the success that the merits of the shutter should command, I remain,

Yours respectfully,

F. O. MANNING, M.D.

CAMERA CRAFT



San Francisco, California.

A Plea for Cyko Prints



Platinums
Carbons.

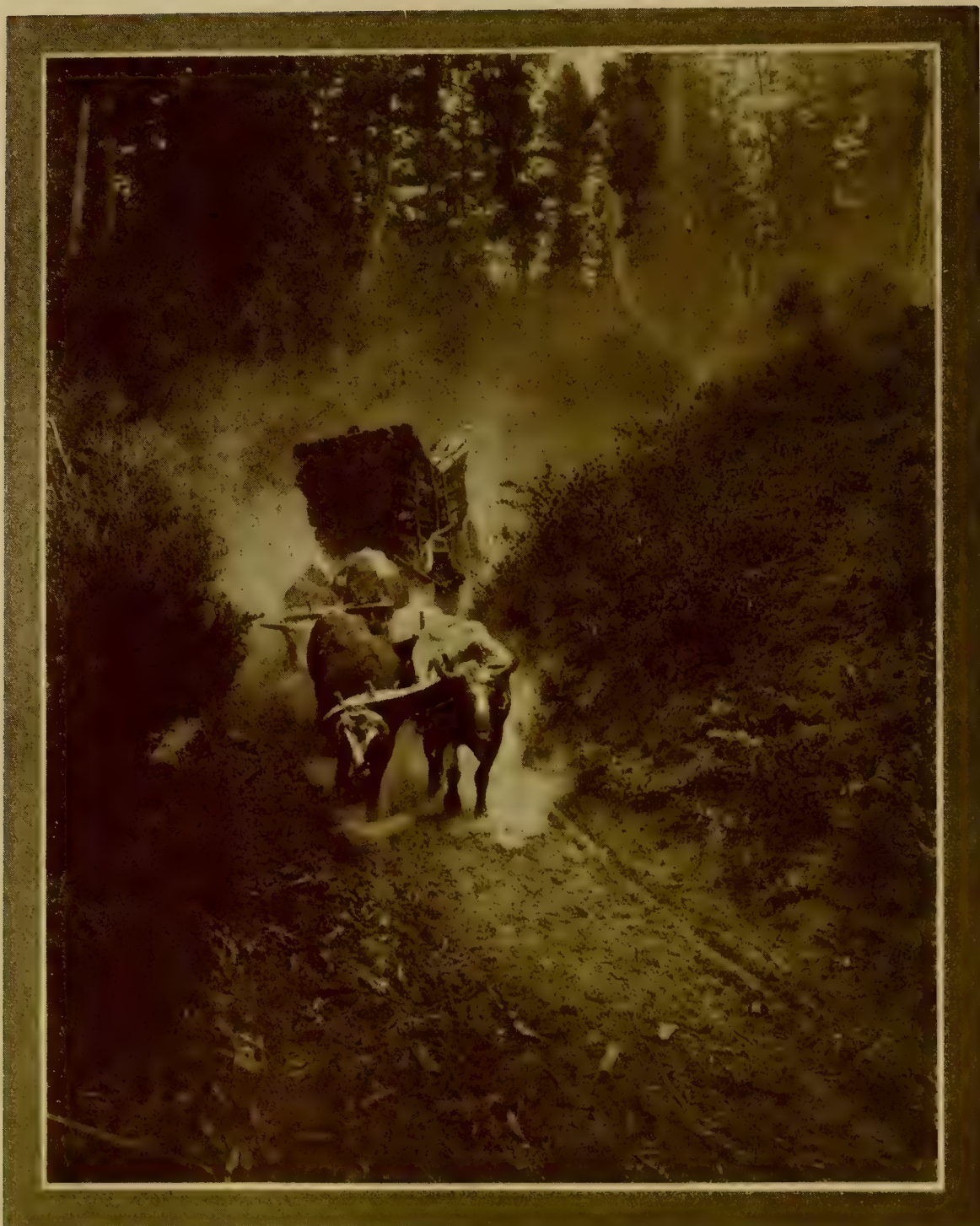
J. Moody Dawson
Elegance in Photographic Art,
Houston, Texas

Dear Mr. Stanbury:—

I just thought I would write you to thank you for that beautiful Professional Cyko Paper you just sent Mr. Schaeffer. He gave me a sample. I made two prints and left my dark room and went to the phone and ordered two gross of cab. I finished up some orders for Platino on this paper and my customers were highly pleased with it. I think you have ————— skinned a city block and that means you have the finest developing Paper on earth. I am tickled to death with it and will use it without fail as long as I am in the profession and you make the paper. With best wishes, I am,

Faternally yours,

Will send you some prints in a day or so.



IN THE CALIFORNIA REDWOODS
By DR. C. GEORGE BULL
Fourth American Salon

CAMERA CRAFT

A PHOTOGRAPHIC MONTHLY

VOL. XIV.

SAN FRANCISCO, CALIFORNIA, DECEMBER, 1907.

No. 12

The Pinatype Process of Color Photography

BY H. E. BLACKBURN

This article is the outcome of actual experience and carefully carried out experiments made with supplies placed at Professor Blackburn's disposal by Victor Koechl & Company, 122 Hudson Street, New York, who are sole licensees for the United States and Canada for the Farbwerke vormals Meister Lucius & Bruning, Hoechst-on-Main, Germany. The New York agents advise that they will be pleased to send a full descriptive pamphlet on request and that they are prepared to supply experimental sets at a low cost.

The Pinatype process of producing color photographs is the most practical and inexpensive method now in use; and, for producing post cards in colors, it has no equal. Briefly speaking, three light filters are used—blue, green and red. Through these exposures are made in the camera, upon panchromatic plates; and from these negatives positives are made direct or enlarged to any size. These positive plates are sensitized by being bichromatized; and, after drying, are exposed under the negatives to light, which renders the film more or less hardened, or impervious to water, throughout its thickness, according to the density of various portions of the negative, excepting in those portions entirely protected from light action by the most dense portions of the silver deposit. The well-washed positives are then stained in blue, red and yellow Pinatype dyes, which only adhere to the unhardened gelatine parts. These dyes do not stain the hands and are therefore convenient to handle. After a slight washing, a piece of wet paper coated with gelatine is pressed into contact with each dyed plate in succession, the order being blue, red and yellow. The colors, in the positive film, under this treatment are transferred to the film of the gelatine coated paper.

Special apparatus which permits of a very rapid change of filters and plates, as well as the method of developing the negatives, was described in the March and June issues of this magazine. Suffice it to say that the three negatives made through the red, green and blue filters should be alike in one respect, they must be free from fog, clear and plucky, but not too harsh. Avoid pyro or any developer that will tan the film or cause harshness; amidol or rodinol works well. Owing to the negatives having but one-third density (the three forming one complete negative) slow positive plates must be used, such as Seed's process plate, Cramer's slow transparency and the like.

In enlarging from the three negatives, these plates give good results.

Avoid harsh working developers in developing positives; also, the finished positives should be fairly dense, with clean whites; and, above all, do not use acid hypo, but just plain hypo in fixing out the positives; never doctor the positives, but correct all faults in the negatives.

There are two methods of transferring the colors on to the paper; the first, which is generally used, as it is less difficult and very rapid, is that of staining the washed bichromate-hardened positives and then transferring the dye from these plates to wet gelatine coated paper by imbibition. The other, which gives very fine prints, but is somewhat slower, consists of coating a glass plate with stripping collodion, and upon this plate one film of bichromatized gelatine is spread, dried and printed, under the proper positive, and stained in blue. The plate is then dried, recoated with bichromatized gelatine, and exposed for the red; the same operation following for the yellow. The three composite films are then attached to a piece of transfer paper and stripped from the plate. Pinatype dyes do not stain anything except unhardened gelatine. If the positive made from the red filter negative is bichromatized and exposed to light, washed out and stained in Pinatype blue, the dye only adheres to the unhardened gelatine. This is also true of the other two colors, the red and the yellow.

The positive printing plate can be used over and over again, as it only requires restaining; and it is always ready. The dyes are cheap, a little answers for a large amount of work, and they are very permanent. The one great advantage of this process lies in the fact that one film carries all three colors.

The outfit required is composed of the following articles which can be secured of the New York agents of the Pinatype Company, Victor Koechl & Co.: Pinatype blue, red and yellow dyes and fixative in fifteen-grain tablets. One box of transparency plates, one package of double transfer paper, one pound of chemically pure bichromate of potassium, and two kodak film clips. The balance of the necessary outfit can be found about any ordinary dark room.

To proceed with the first method, take the positive made from the red filter negative and mark it blue, the one from the green mark red, and the one from the blue filter mark yellow. These three positives are next sensitized in the following bath, which should not be over sixty-five degrees Fahrenheit, for three minutes, using artificial light:

Bichromate of potassium, c.p.	60 grains
Ammonia, .880	1 ounce
Water	10 ounces

Drain these positives well, but do not wash them; then set up to dry in a dark, well-ventilated room. When they are dry, place each one in a printing frame with a strip of printing-out paper underneath and expose to sunlight until the printing-out paper has the appearance of an over-developed negative; then wash the positive in cool water for five minutes, then place them in a five per cent ammonia bath for one minute; and give them a final wash to remove the ammonia.

Although it is not essential to dry these positives before staining, it hardens the film and keeps the color on the surface. Take the positive marked blue and move it about in the following dye bath for fifteen minutes:

Pinatype blue	10 tablets
Water	9 ounces

This bath should be made up some time before use. At the end of fifteen minutes wash the positive until the whites are clear; if they do not wash out well it is a sign of under-exposure; on the other hand, if the positive refuses to take the stain or dye, and looks harsh, it is a sign of a rare occurrence, over-exposure. A correctly timed print plate will have clear whites and be full of detail.

Place a piece of glossy or matt double transfer paper in a pan of cool water until the tendency to expand has ceased, but do not wait until the surface acquires a slimy feeling, but remove it from the water as soon as it becomes tacky. Place blue print plate in the bottom of the tray and bring the paper down on it with a squeegee, thus avoiding air bubbles; lift both out, and attach a kodak film clip on one end to keep the paper from moving while you are rubbing down the paper on the print plate; then place a piece of wet glass on top of the paper, and allow it to remain five minutes. Then turn over one corner of the paper; and, if the blue has transferred enough to look



HOUSES PILED ON HOUSES IN PERUGIA

By WENDELL G. CORTHELL

like a light "blue-print," remove paper; if not, let it soak; and, when correct, remove paper and stain the print plate for five minutes only, when it is ready for another printing.

Take the red positive next, and stain as in the case of the blue in the following bath:

Pinatype red	10 tablets
Ammonia, .880	60 drops
Water	9 ounces

Rub up the dye in a little water, then add the balance, and lastly the ammonia. Follow the same instructions as for the blue; then place the wet blue paper print on a piece of glass, allowing it to extend over the end about one-fourth inch; then place the well-washed red print plate, film to film, on the blue print; register rapidly by sliding the red plate about until its image meets or registers with that of the blue print. Then clasp the film clip on the print and plate where they extend over the underlying sheet of glass on the table, lift up carefully and turn the two over; and, working from the center, rub out all the air bubbles between the glass and the paper; let the two stand until the print looks well in harmony for the two colors; then strip and restain red print plate for five minutes for another impression.

Take the positive marked yellow, and stain it as before in a bath made by grinding up the yellow tablets, dissolving them in water and then filtering the solution as follows:

Pinatype yellow	10 tablets
Water	7 ounces

Proceed as described for the red print plate, and make the final register of the yellow print plate upon the blue-red print; and when the print looks well balanced take it off and examine it. Should the whole print be too dark, squeegee the wet print to a piece of wet transfer paper. Should it lack in any one color, squeegee the wet print on to the desired wet print plate to secure more color. When the print is satisfactory, fix it out for five minutes in Pinatype fixative, forty grains in two ounces of water.

The best prints are made, although by a slower method, as follows: A perfectly clean, heavy piece of ground glass (or plain for glossy prints), is polished with talc or French chalk; then wet a piece of cloth with alcohol and rub around the edge of the glass, leaving a half-inch margin; coating this clear edge with the following solution: Swell 360 grains gelatine in sixteen ounces of cool water, then melt, and when lukewarm add fifteen grains of bichromate of potassium, C. P. Keep this in a dark bottle.

After the gelatine margin has dried, coat the whole plate with a two per cent stripping collodion, with the room not over sixty-five degrees Fahrenheit if possible. Next swell five parts of hard gelatine in one hundred parts of water, then heat and dissolve; and when lukewarm add two parts of bichromate of ammonia. Pour this lukewarm solution on the dry collodion plate, level and let dry in a well-ventilated dark room, free from dust. Make three new positives, then take the blue positive, made from the red filter negative, and place it in the printing frame with the bichromated plate underneath;



AN AUSTRALIAN LANDSCAPE

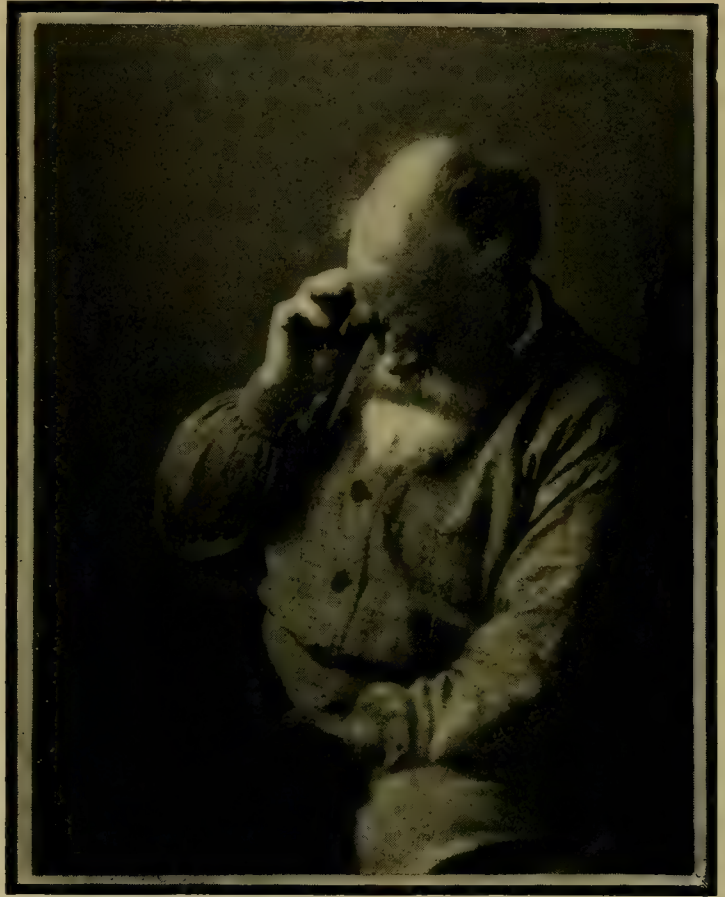
By J. WILLIAMS

print in a strong light until a piece of Solio paper under the red positive in another frame looks like a well-developed negative. When correctly exposed take the plate out and wash it well. Then run it through a fifteen per cent solution of acid sulphite of soda, and finish with a good washing before staining with blue Pinatype dye, as in former operations. When the film attains the appearance of a light "blue-print" wash it well and then place in an upright position to dry. When it has become thoroughly dry coat it a second time with bichromatized gelatine, and proceed to register the red positive, made from the blue filter negative, over the dry blue print (use the blue positive with a sheet of Solio paper as a print meter); and, when correctly exposed, wash out plate and stain in Pinatype red; wash out and fix in acid sulphite, wash and dry and recoat with bichromatized solution.

Place the yellow positive in register last, and proceed as for the red; and after a final fixing, if the print is wanted for a lantern slide, bind on a piece of cover glass; but, if wanted for a print on paper, squeegee a slimy piece of double transfer paper on the three layers; and, when it is dry, cut around the inside edge of the gelatine margin on the plate, when the mass will strip from the polished plate. As there are no particles of silver deposit and only pigment left, the image is absolutely grainless and very transparent.

A Series

The two pictures on this page and the one opposite form a series that is very interesting on account of the strong story-telling element which binds them together; but they have the added interest for our readers that is due to good technical work. In them we have portrayed the several stages of a commonplace episode in the life of an individual who, through choice or misfortune, must himself attend to many of his homely sartorial needs. We take particular pleasure in reproducing these for the reason that we are constantly receiving stiff, conventional self-conscious portraits of subjects every bit as good as the one Mr. Palmer has used; the senders asking for our criticism. We almost



DISCOVERED! (A HOLE)

By J. WILL PALMER



A SATISFACTORY JOB

By J. WILL PALMER

invariably suggest that the subject be given some employment, some source of interest or some associated accessory that will make a title possible as long as the object is not alone the securing of a portrait of a certain individual. As this series shows, situations having pictorial possibilities are simply endless. Any one of the three here reproduced are worth a number of the ordinary results and yet the particular employment given the subject is by no means the most appropriate or the most amenable to good photographic treatment. The prints are all on platinum paper from 5x7 negatives, made in an ordinary living room with a camera and lens such as is listed in every dealers' catalogue as a complete outfit at a moderate price.



NEVER TOO LATE TO MEND
BY J. WILL. PALMER

Correct Color Values

By PRESTON E. ANDERSON

I may as well confess right here at the beginning of this article that I have been collecting data for several years with the intention of inflicting upon the readers of this magazine an instructive digest on the subject of correct color values and the method of obtaining them in our photographs. As the supply of material increased and my own experiments multiplied, I began to consult with the editor as to the practicability of running a serial article. The authorities all agree, practically, that certain plates required filters adjusted exactly to their orthochromatic qualities and my own experiments seemed to bear this out. Other writers found it necessary to explain that the preponderance of a certain color in the subject made it advisable to still further modify or adapt the filter. This was not so bad, but no two writers appeared to be of the same opinion on the subject, and even if they had, there would have been a vast amount of uncertainty introduced through the wide divergence of opinion that different workers would hold as to the exact amount of preponderance displayed by any certain color in any given subject.

About this time I learned that R. James Wallace, F. R. A. S., A. A. P. S., Instructor in Photophysics at the Yerkes Observatory of the University of Chicago, who had been carrying on an extended amount of research work with a special spectro-photometer and color wedges of measured dye variations, had succeeded in constructing a filter that absorbed the ultra-violet without disturbing the already corrected colors or strengthening the action of the blue after that last color had been subjected to the diminution inherent in the yellow of the same filter. Mr. Wallace's study and research were devoted to the determination of the proper combination of dyes that would permit the photographing of the stars in their relative degrees of visual luminosity. The difficulty theretofore had been that the reddest stars, some of them appearing quite bright in the telescope, barely impressed the plate, while others that were invisible except with the most powerful astronomical instruments, impressed themselves strongly upon the photographic plate, owing to the action of the ultra-violet, and visible blue-violet, which react upon the ordinary orthochromatic plate enormously in excess of the remaining colors.

It was with considerable satisfaction that I learned later through a paper by Mr. Wallace in the "Astrophysical Journal," of the complete success of his efforts, and the details of the work which he had undertaken. On learning later that the filters would be placed on the market for the use of photographers I immediately made application, and was gratified to have one placed at my disposal. Previous experiments, and the results and memoranda which they had produced, made it quite simple and easy for me to compare the behavior of this new filter with that of others on the market, and those suggested by writers on the subject. I found the new



filter to be a most satisfactory substitute for the complicated and problematical adjustments of plates and filters for special subjects which I had outlined as the result of my experiments in connection with the matter published on the subject. To detail these experiments would take up too much space and serve no good purpose. I will show herewith two prints, photographs of an ordinary bit of nature containing some leaves in their autumn tints. In the right-hand example these lighter tints are well recorded by using a Wallace filter in conjunction with a well-known brand of Orthochromatic plates. In the other or left-hand example, the same plate was used, but without the filter. The lighter colored leaves are so only because they are at the right angle to catch the strongest light.

The second example requires no comment further than the statement that the originals, the flags, are highly colored. The left-hand print is from a negative on another good brand of Orthochromatic plates without a filter, the right-hand one being from a negative on the same brand of plates, but using the Wallace filter.



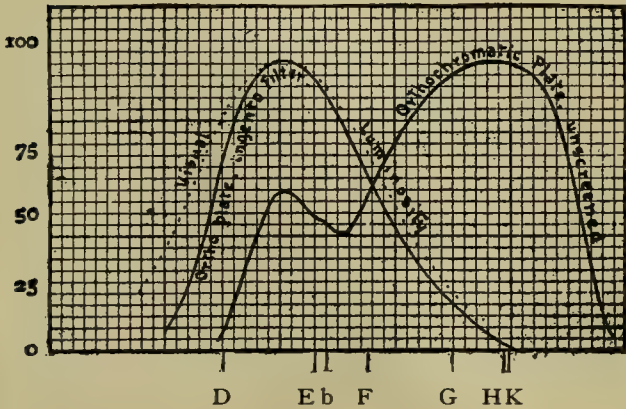
The function of a perfect color filter, it is hardly necessary to explain, lies in its power to tone down the photographic activity of certain light-rays to that point where they will correspond in their action upon the plate to their visual luminosity or actual appearance to the eye. I can best explain this by inserting here a table given in Mr. Wallace's article in the "Astrophysical Journal," of last November:

Color	Visual Brightness or Luminosity	Photographic Brightness on Ortho Plate	Photographic Brightness on same plate but through Wallace Filter
Red	35	5	25
Yellow	100	10	100
Green	80	20	78
Blue	40	95	35
Violet	10	100	9
Ultra-Violet	0	90	0

The reader will observe that the least luminous color, violet, has the strongest action upon the unscreened plate, while the yellow fares equally disastrously but to the other extreme. The behavior of the ultra-violet rays should also be noted. That this may be made still clearer I will introduce another figure from the article mentioned, together with a photograph showing a spectrogram of daylight taken without filter on an orthochromatic plate and again on the same plate using one of the Wallace filters. It is easy to see that in the first the light is most active in the blue, violet, and ultra-violet region, while in the second the maximum action of the light is shifted into the yellow and green region where it rightly belongs. I might add for the benefit of the reader who has not had the advantage of spectroscopic study, that the two Fraunhofer lines of the spectrum marked H and K in the cut are at the extreme limit of visibility,

requiring a practiced eye to just dimly perceive them in spectrum. Beyond, to the right, where so much light action is recorded on the unscreened plate, lies the region of the ultra-violet or invisible rays, entirely cut off in the negative made through the Wallace filter.

A few words here might prove interesting as showing how Mr. Wallace went about the work of securing his results. From his knowledge of the spectroscopic value of the available dyes, a number were selected and color wedges made containing accurately measured amounts of dye and vehicle. These wedges were measured off in exact gradation, showing a variation in the amount of dye less than 1-10,000 of a gram, and from these



A is a spectrograph of daylight Cramer's Iso plate without filter.
B is a spectrograph of daylight Cramer's Iso plate and Ingento Color Filter.

were made a series of spectrograms. One color after the other of the spectrum was adjusted by means of the various dyes and wedges, and when all had been brought to the right intensity, to correspond with the visual brightness in turn, all of the wedges were superposed at the determined density gradation points, and a spectrographic record made to verify the combined results. The next operation was to determine from the scale on the several wedges the exact amount of each dye and its accompanying vehicle, necessary to secure the same result in a finished filter of a certain area, after correcting for balsam, glass and the slightly altered proportion of dye to gelatine. The final testing of the speed, both spectroscopically and photographically, completed the work. This brief outline, of course, gives little hint as to the vast amount of careful and scientific work involved.

Neither do these few words of description give any idea of the comprehensive knowledge of both the chemical and physical properties which Mr. Wallace brought to the work through his many years of research work along these lines in what is perhaps the best equipped photo-physical laboratory in this country, which, while belonging to himself personally, and built up by years of experience, is supplemented by that of the great astrophysical research observatory of the University of Chicago. The manufacture of the filters for general photographic use has been entrusted to the well known Chicago firm of Burke & James, who are putting them out under the name of the Ingento color filter, these having the endorsement of Mr. Wallace, who has sanctioned the use of his name in their sale. Each filter is given a rigid spectroscopic test before being sent out, and I can assure the user that he will be pleased with its action under the most severe tests. The Ingento color filter has about double the speed of the ordinary filter, and it works perfectly with all brands of orthochromatic plates. In closing, I can hardly do better than to quote from Mr. Wallace's paper, in which he says: "At the present writing there is scarcely a manufacturer of photographic plates throughout the world who does not prepare one or more brands of color corrected plates, and it is merely a question of very brief time until the use of orthochromatic plates will be imperative for everything save the photography of black and white."

Our Work

A bit of work of the highest quality is a key to a man's life, because it is the product of that life, and it brings to light that which is hidden in the man as truly as the flower lays bare to the sun that which was folded in the seed. What a man does is, therefore, an authentic revelation of what he is, and by their works men are fairly and rightly judged.—Hamilton Wright Mabie.



EVENING AFTER A RAINY DAY
By DR. GUSTAV EISEN
Fourth American Salon



THE WEST WIND
Fourth American Salon

By MRS. SARA HOLM

The Fourth American Salon

By WALTER THURSTON

The Fourth American Salon of the American Federation of Photographic Societies opened its season on Sunday afternoon, November 3d, in the amphitheater of the Duquesne Garden, Pittsburg, under the auspices of the Pen, Pencil and Camera Club of that city. The pictures were chosen by what may be called the double jury system; in other words, the twelve hundred submitted were reduced to seven hundred by a jury of prominent pictorial photographers, and these in turn were submitted to a jury of painters who selected the two hundred and thirty-nine that make up the exhibition.

The pictures, as a whole, appeal to the writer as marking a well defined advance over previous exhibitions in conception and technique. There is a well defined tendency prevailing the entire display to depart from the conventional in subject and the commonplace in treatment. This must not be understood to imply that "effects" have been sought after to the neglect of good work. It means only that the pictorial photographers of the present day are awakening to the full possibilities of photography as a medium of artistic expression. While the exhibition, again taken as a whole, does not display an epoch-making advance, an improvement is certainly more than evident, and there are several pictures shown that are better than any heretofore displayed at the three former salons. Original, even iconoclastic, are some of the conceptions; but, in the main, truth is retained and good work given its proper valuation.

A local critic, in reviewing the pictures for a weekly magazine, gives the first and most important portion of his article to the mention of eight

pictures; three of them from Pacific Coast workers and three from England, the remaining two being from the West. I can therefore, I believe, be considered impartial and consistent in giving the first part of my own review to a consideration of the pictures coming from that territory which "Camera Craft" so well represents. "In the California Redwoods," by Dr. C. G. Bull of Alameda, California, is a strong piece of work. It has quality and texture, to be sure, but its strength lies in the life and action which it so perfectly portrays without sacrifice of good composition and atmosphere. Two others are shown by Dr. Bull, but they suffer by comparison. While this is his first essay at salon honors, his technique indicates that he is by no means a



SALT MEADOW CREEK
Fourth American Salon

By WM. T. KNOX

beginner in photography, and he is certainly blessed with a keen appreciation of the pictorial. C. E. Bailey of Los Angeles scores very strongly with his "Fisherman's Wharf." It is one of the best things on the walls. His other is less pleasing. Henry Berger Jr. of Portland, Oregon, shows three; two marines that are effective though faulty; but in "Lost" a picture has been produced, one that has all the elements of a masterpiece. It is as simple in its subject and treatment as it is strong and distinctive in its accomplishment. It is one of the pictures of the exhibition. Dr. Gustav Eisen of San Francisco has eight; all large prints showing street scenes in Algiers. They are all good, but a little too even in size, theme and quality

to make as strong an impression as they might. "Evening After a Rainy Day" is perhaps the best. Several of them suffer somewhat from a lack of aerial perspective, a quite common fault of straight bromide enlargements from small negatives. Alphonse Hirsch shows one, "The Pacific," that is good, though not particularly effective. Emily Pitchford, of Berkeley, is represented by two portraits, characteristic of her good work in this line. Charles E. Townsend, Oakland, has four, none of which are up to his standard of the earlier salons. R. E. Buchanan, of Kohala, Hawaii, shows but one, "Rain in the Mountains." It is not particularly noteworthy, aside from its good composition and evident truth.

The one picture of the Salon, if the title can really be used, is no doubt "Vauxhall Bridge in Building," by A. H. Blake, of London. It is



AFTER A STORM
Fourth American Salon

By FRED JUDGE

impressive, it is "large." It stands out as a master production if only as an example of what can be done by right selection, even where the material is most unpromising to the uncultivated eye. His other two are good, but they lack the masterful treatment of the first. Fred Judge, Hastings, England, in "Evening" and "After a Storm," has two that are particularly good. Arthur Smith, of Nelson, scores a success in his "A Stormy Homecoming," and Gertrude Aichison, of Oxford, shows one, "Market Day," that is noteworthy. Other English workers represented are: Mrs. G. A. Barton, W. A. I. Hensler, Frank H. Hudson, S. G. Kimber, Lewis Lloyd, W. H. Nithsdale, H. Y. Summons, and A. W. Walburn.



U. S. S. CHARLESTON IN PORTLAND HARBOR
Fourth American Salon

By HENRY BERGER, JR.

Germany, this year, is represented by one exhibitor only, Rudolf Duhrkoop of Hamburg. He shows thirteen, all portraits and all of excellent quality. "The Morning Dress" is above criticism, and several others have a quality that is hard to secure in a photographic portrait. M. Govindasawmynaidw of Madras, India, has a typical Hindu child study, and P. S. Joshi of Bombay shows another that is characteristic of that country.

Giuseppe Castruccio of Genoa shows ten, all less striking, perhaps, than his of last year, but much more pleasing on account of the improved technique, "Contrabbandien" and "La Figlia del Pescatore" being the best. Four other Genoa workers, Pierluigi Erizzo, Nino Ferrari, Dr. Cesare Martini and Ing. Lucio Benedettelli, all have good work to their credit. All are small but very interesting. "While the World Sleeps," by R. S. Planche of Quebec, is a fine night picture of trees and snow. Henry Ravell of Cuernavaca, Mexico, shows three that are quite effective, ranking with the best, and particularly pleasing on account of their non-photographic treatment. This, I believe, completes the list of foreign work.

Chicago is well represented, the most effective in the group being "West Wind" by Sara Holm. This is a panel effect that is much more original and striking than her effort of last year that was purchased by the Federation. B. H. Brookins shows six, all good; "Snowstorm in the City," the most effective, being very realistic. Clarence K. Chamberlain, C. W. Christiansen, J. R. Daniels, Fred R. Dopprich, George C. Elmberger, S. L. Gates.

B. J. Morris, J. G. Ruggles, Clinton J. Spencer, F. M. Tuckerman, and Miss Fannie Williams completing the list. Space does not allow me to mention as many individual pictures as I should.

Worcester, Massachusetts, the city that achieves such a success each year with its exhibition at the Art Museum, is well represented with a strong collection, the work of George Butler and Dwight A. Davis. Wilkes-Barre, Pennsylvania, has to her credit the work of such masters as Will S. Brodhun, R. S. Kauffman, Edward F. Ryman, and C. O. Thurston. Indianapolis, Indiana, shows the work of Benjamin W. Douglass and John Chislett; the latter showing exceptionally fine atmospheric effects, as he always does. Washington, another camera club city, has to its credit such pictures as are produced by Josephine Dyer Weymouth, Ralph W. Magee, and Winfield Scott Cline. St. Louis shows a much larger number this year than ever before. The pictures by the Misses W. and G. Parrish are, as usual, excellent. C. Nye Pickering has a very fine fire scene, and "A Rainy Day," by William A. Reinheimer, is a charming little picture. Edward Brown has three, all very good.

Sheboygan, Wisconsin, boasts three exhibitors, Dr. W. F. Zierath, Dr. W. H. Winchester, and Dr. George H. Scheer, Jr.; "The Fresh Broken Trail," by Dr. Winchester, ranking with the best half-dozen in the Salon. The work of B. F. Langland, Sigurd Edling, and Frank G. Wood, all from Milwaukee, is good. Mrs. Eleanor Willard, of Grand Rapids, Michigan, shows two; "Katwyk Fishermen" being a fine study of unconscious poses. Louis Fleckenstein, of Faribault, Minnesota, has five, and maintains his usual high standard. Avery E. Field, of Lowell, Michigan, completes the list of Western exhibitors.

New York and vicinity is represented by workers of such acknowledged ability along pictorial lines as William T. Knox, William H. Zerbe.



A STORMY HOMECOMING
Fourth American Salon

By ARTHUR SMITH

James E. Underhill, Lee Hamilton Keller, H. Hendrickson, Richard M. Coit, and Flora M. Coleman. Mr. Knox, in his "Salt Meadow Creek," shows one of the best landscapes of the year, while Mr. Zerbe shows also a keen appreciation of good landscape composition.

R. L. Sleeth, Jr., Pittsburg, has eight, his "Rugged Coast at Dusk" being a picture of great merit. William H. Phillips, of East Liverpool, Ohio, has a like number. Both of these gentlemen show, by their own work, their fitness for a place on the preliminary jury of photographers. C. F. Clark, of Springfield, Massachusetts, has three very good things. Wilfred A. French, of Boston, shows but one. F. A. Smith, of Cleveland, has one; H. W. Minns and Louis V. Allen, of Akron, have two and one respectively. William S. Ellis and Arthur W. Wilde, of Philadelphia; Irving K. Park, of Athens, and Stockton Horner, of Concordville, all show creditable work. This nearly completes the list. I regret that space allows me merely to catalogue so many names whose pictures are worthy of individual mention. The reproductions herewith will show how good are many of those to which I have hardly more than referred.

With the following names the list is complete: Katherine Bingham, St. Johnsbury, Vermont, shows one, "Dreams," which ranks with the best of the year. It is beautiful in tone and treatment, and pleasing as to subject and pose. J. F. Jones, of Toledo, has a most pleasing picture of some sheep in a characteristic group. E. G. Fountain, of Cleveland, has two; T. F. Gotham, East Liverpool, one; Mrs. W. W. Pearce, of Waukegan, Illinois, one, a charming child group, and Edith H. Tracy, Plainfield, New Jersey, one.

The "Kino" in Natural History

The new hand cinematograph camera known as the "Kino" has proven itself useful and practical under circumstances not foreseen when the camera was first placed on the market. It has lately been used successfully by both naturalists and physicians. Thus, during the meeting of the Natural History Association in Berlin, a series of moving pictures was shown by its aid, depicting the life and habits of the Chinese climbing fish, a specie that climbs trees and by blowing itself up into a ball is enabled to live for hours upon dry land. Another series showed the movements of the octopus in its native elements. A specialist on nervous diseases, Dr. Reicher of Wien, demonstrated how, from a series of Kino cinematograph pictures, nervous diseases may be successfully diagnosed. The most interesting series, however, was one representing the minute animoles in an aquarium, the "Daphnia." Another series showed the actual formation and growth of cristols; a demonstration which caused many of the spectators to wonder if the cristols do not actually possess life.—Die Photographische Industrie.

After Treatment of Bromides and Gas Light Prints

By ELLIOTT CANFIELD

It is desirable, not only on account of the added permanency, but for the reason that any after manipulation is much safer, to have every assurance that the final washing, following fixing, has entirely removed the hypo from the print. For a ready and simple test, make up the following solution:

Potassium permanganate	2 grains
Potassium carbonate	20 grains
Water, distilled	10 ounces

By putting about an ounce of this solution into a glass and allowing the drippings from one of the prints to fall into it, the presence of hypo will be indicated by the solution turning from a purple to a green tint. Another good test for hypo is Ebsden's paper. This is made by soaking filter paper in starch paste, drying, and then immersing it in a weak solution of iodine in alcohol, in which it will become intensely blue. If a strip of this paper becomes paler in a little of the water draining from a print than does another strip in clear water, hypo is present. This is simply a modification of the well known starch-iodine test for hypo.

No doubt the commonest defect with the worker has to deal is a slight staining of the high lights. This is caused, as a rule, by too long development, but washing in water that contains iron will sometimes produce the same result. The remedy, or rather the cure, is to strengthen the clearing bath or else pass the prints through a solution made by adding four minims of hydrochloric acid to eight ounces of water, just before placing them in the fixing bath.

An excellent clearing bath is compounded as follows:

Thiocarbamide	30 grains
Citric acid	15 grains
Water	16 ounces

The prints, after the regular washing, should be placed in this bath and allowed to remain until the desired clearing has been effected; a final washing following. This bath will remove surface markings, most yellow stains, and slight fog produced in development. It will clear up and brighten the prints wonderfully, and is advisable as a regular feature of the manipulation of bromide and gas light prints. There is another way of removing the yellow stain due to prolonged development, and that is by the use of Lainer's acid fixing bath, the weak acidification of which avoids turbidity. It is made up as follows:

Tartaric acid solution (1 to 2).....	5½	drams
Sodium sulphite solution (1 to 4).....	2	ounces
Hypo solution (1 to 6).....	32	ounces

Another good clearing bath is:

Thiocarbamide	90	grains
Alum	90	grains
Citric acid	22	grains
Water	10	ounces

Both of these can be used repeatedly or until they acquire a distinct color. A clearing solution that is highly recommended, but which I have not had an opportunity of trying, is made by dissolving sixty grains of iodine, a like amount of potassium cyanide, together with one hundred and twenty grains of potassium iodide, in ten ounces of water. This makes a stock solution that keeps indefinitely. Markings, surface stains and like defects can be removed by putting a few drops of this solution into a few ounces of water and going over the surface of the print with a tuft of cotton moistened in the dilute solution. It is said to have the most satisfactory results upon all kinds of stains and discolorations as well as objectionable markings.

This above is hardly more than the ordinary iodine-cyanide reducer, which I have found excellent for the purpose of clearing up stained and degraded prints, as well as for reducing. It is as follows:

Iodine in alcohol (10% sol.).....	60	minims
Potassium cyanide, in water (10% sol.).....	120	minims
Water	4	ounces

I prefer this to the ferricyanide and hypo reducer, for the reason that there is much less inclination to remove delicate detail from the print. A writer in the "Photographic News," some time ago, recommended workers in bromide and gas light papers to remember the golden rule that full exposure and quick development gave the most pleasing prints on these papers. Nevertheless, he went on to say, errors in exposure were all too likely to be made, and stained prints would result from prolonged development. These stains, he advised, could be removed by cautiously applying the following solution with a tuft of cotton:

Potassium ferricyanide, five per cent solution.....	1	ounce
Ammonium persulphate, five per cent solution.....	1	ounce
Water	2	ounces

Prints that have been under-exposed and forced in development will have a bad, rusty green color, and this can be remedied by the application of an ordinary gold toning bath. A good formula is composed thus:

Acetate of soda	30	grains
Chloride of gold	4	grains
Water	8	ounces

Sometimes the bromide print turns out a rusty green with perhaps a few shades too light a color. These should not be thrown away, but transformed into good prints of a pleasing color by means of gold toning. The bath is composed as follows:

Sulphocyanide of ammonia	60 grains
Chloride of gold	4 grains
Water, boiling	8 ounces

The sulphocyanide should be dissolved in half the water, the gold in the remainder, and then the gold solution added to the first with constant stirring. The bath is ready for use as soon as cool. The fixed and well washed print is squeegeed face up on the clean bottom of a tray or a sheet of glass, and the above bath applied with a broad, camel's hair brush until the color is satisfactory. Thorough washing completes the operation. If intensification is required at the same time, the following may be tried; adding a few drops of chloride of gold solution to a little of it just before applying with a brush:

Sulphocyanide of potassium	120 grains
Bichloride of mercury	30 grains
Distilled water	7 ounces

The prints should be washed and again fixed and washed after this treatment.

As in the case of plates, slight reduction followed by intensification will improve prints that are flat and lacking in quality. The ordinary Farmer's reducer, composed of hypo and ferricyanide of potash, is not well suited to prints on account of its tendency to stain the paper. A good reducer is:

Potassium iodide	40 grains
Hypo	2 ounces
Water	8 ounces

The prints are allowed to remain in this for a length of time sufficient to clear them; then well washed to remove the hypo and intensified as advised in another part of this article.

A commercial printer of this city, one who is well known for the high quality of his prints, pins his faith on a hypo-alum-soda reducer for prints that have been developed too far. In fact, he often purposely makes a print too dark and then subjects it to this reduction process in order to get a better print than would be obtainable by ordinary development. Prints must be well alumed and preferably dried before placing in the warm solution as used, or blisters may result. The black tone of the print is not altered, and the relative intensities of the shadows and half-tones are preserved, although the reduction can be carried to any desired degree. To make the bath, put two ounces of hypo, two of powdered potash alum, and one of bisulphite of soda, into a porcelain dish and pour on twelve ounces of boiling water. The bath should be used warm, as its action is then more rapid. As soon as the desired reduction is secured the print should be placed in water for final washing. This also stops further action.

Like plates, under-developed enlargements on bromide paper are amenable to intensification. The hypo should be completely removed by washing, and the print then bleached in a solution of mercuric chloride. Again, well washed, it may be darkened in a solution made up by adding an ounce of water to every ounce of a saturated solution of sulphite of soda necessary to make the required bath. The application of the blackening solution should be made in daylight, when the tone will tend towards a purple of good color.

Bromide prints may be enriched in tone and strengthened in depth by the following process: Put the print on a sheet of glass and wet it uniformly over its surface; then pour on a solution of bichloride of mercury of about half saturated strength. In other words, the saturated solution used in bleaching negatives for mercuric intensification should be diluted with an equal bulk of water. As soon as the solution starts to bleach the image, the print should be well washed in running water. Still remaining on the glass, it should be flowed with a weak solution of ammonia. The image will be intensified and the tone made a warmer and more mellow one.

Sulphide toned bromide prints may be reduced by placing them in a hypo-alum bath and heating it, in the same manner as one would an untuned print. The color is improved, if anything, by this treatment. And this reminds me, in condemning the hypo and ferricyanide reducer as liable to stain when used on prints, I should have added that a German writer some time ago advised that the addition of sodium carbonate in an amount equal to the hypo, would prevent staining and at the same time slow the action of the solution. The suggestion is one that is worthy of trial.

A "Business Bringer"

After many long years of photographic work, involving patience and perseverance, on "looking backward," it seems to the writer that one of the best items available for the securing of "new business" is overlooked or not understood by the professional portrait photographer of the present day. In years gone by, whenever a nice subject came into the reception room, we seldom omitted a request to make a negative "just for the gallery," only. A print was always mailed to the subject, "Complimentary," of course. Seldom, if ever, did our so doing fail to bring an order as a result. The principal reason being, perhaps, because the negative was made "just for the gallery," it showed an entire absence of the usual self-conscious "picture expression" so well and unfavorably known to us all, coupled with the fact that it was shown and talked over with the sitter's most dearest five hundred friends; this last being the very best kind of a working advertisement for all concerned.—"Old Forty."

Printing a Cracked Negative

Good prints can be obtained from a cracked, yes, even broken, negative in the following manner: Simply put the negative out in the frame in the usual way just as if there was nothing the matter, only lay a porcelain plate in the frame before placing the negative in position. You will be both surprised and delighted to find that the print shows no mark of the crack or break. It, of course, takes a much longer time to print in this way. There may be a better way; if so, it is unknown to—"OLD FORTY."



OUR CAT "NEKKO"

By GEO. W. REED

The original negative was made on a quarter plate with a Graflex Camera, used at a distance of about three feet from the subject. From this negative a transparency was made by contact, and from this transparency an enlarged negative was made on an 8x10 plate; the print being a contact one. The picture shows the usefulness of the Reflex type of camera in securing photographs of animals at close range, enabling the operator, as it does, to see the image on the ground glass at the moment of exposure.

Something of Importance to Photographers

By A. L. JACKSON

Mr. President, Ladies and Gentlemen of the P. A. of P. N. W.:

When asked by Mr. Emery to consent to talk to you on this occasion, I was at a loss to name my subject, but, after some thought, I concluded to make my subject so broad, that no matter what line of thought I might pursue I would still be in the neighborhood of my text. I, therefore, told him to say "Things of Importance to Photographers." However, after giving more thought to the subject named, I began to get conscientious lest I had unintentionally falsified and would be unable to make my word good. I may be able to point you to many things that confront the legitimate photographer of to-day—things that threaten his success along conservative lines of doing business, but utterly fail to suggest a remedy. In that case I doubt if I could truthfully say that what I might say on this occasion would be of any importance to photographers. Conventions, as a rule, aim to benefit the photographic craft by demonstrations and talks along the lines that promote improvement in our work, either technically or artistically. This is good, and certainly should be continued to the end. However, I think there are some things that are of very great importance that are little discussed at photographic conventions. I suppose this timidity to plunge into the discussion of these subjects, or problems, is first, because, it really does little good where there is no apparent remedy, and second, because it might be thought that it would create hard feeling among a certain class of photographers. I wish to say at this time, as a prelude to my attack, that I have no personal ill will to any photographer, nor do I wish to condemn him personally for adopting any method of doing business he may choose. Furthermore, I do not wish any, if there be one here present, to take anything I may say as a personal slap at him. I only desire in this brief talk to show you (if you are here) in what way you are robbing our chosen art of all its beauty and dignity, and the legitimate photographer of his bank account. I know that many men say that in business all have an equal right to adopt any price for their products, and any system of inducing trade they may choose, and it sounds as though that were true, and it is true, if there is no regard for the elevation of our chosen art, or if you only desire to get all the ready cash out of the public possible, in the least possible time, and then quit the business. I refer to the coupon system of inducing trade. I am informed that there are two classes of coupon venders—one who tries to redeem his promises to the public, and really gives them all he advertises to give—and another class who make no pretensions of keeping faith with the public by giving what they claim to give, but simply aim to get the customer into their place of business, and then apply the graft methods to the limit. Regarding the latter class, I have no language suitable to express my contempt for their method of doing business. I cannot call him a photographer, but rather, a fakir. The former class mentioned are honest, and, I think, very thoughtless as to the

fact that they, too, are putting their hands deep into the pockets of all photographers who adopt a standard price for their work and endeavor to make good by doing better work from day to day. I will explain why I say this. Suppose, for illustration, Mr. Smith has established himself in business in a certain town, has adopted a fair price for his photographs—a price that is generally conceded by the craft at large as being a fair living price. He goes along quietly and honestly, giving his best efforts and talents to improve his work, and enjoys the confidence of the public. As times goes on, the public becomes educated to the price of a dozen photographs, until they consider it a standard of value. There may be other photographers in the same town who do not get so much for their products as Smith does, but perhaps they do not do quite as good work, and their pictures are not worth so much. Mr. Smith gets the best trade, as we say, and the others, a less critical class of customers. Now, along comes the coupon man, and he says, "I will give the public two free panel photographs if they come to my place, or I will give my regular ten-dollar cabinet photographs for \$1.99 per dozen." Why does the public fall over itself to rush to him to be grafted? Possibly, or even granting that they do get the two free pictures, they certainly will not get a work of art. It is plain that the reason they consider it such a great chance is simply because Smith has established a standard of value, and the public thinks to get the same value for a small fraction of Smith's price. It seems to me that it does not require any great amount of reasoning to conclude that the public would not have made this sudden rush for the coupon man had it not been for the fact that Smith kept up a living price, and Mr. Coupon Man reaps the benefit of his years of effort to establish that price. Suppose Smith, and all others in the business in that town, adopted the same price and methods as the coupon man—would there be any rush to either, greater than to the others, granting that their work was equal in quality? I think not. Would either continue a rush very long? I think not. Would either get rich? I certainly doubt it. Well, but Smith does not lower his price, nor surrender the dignity of his profession by meeting the coupon man in his methods. The coupon man flourishes until he cleans up the town; or, if the town or city has a large transient trade, he continues for a longer time, unless he is a grafter, pure and simple, in which case he lasts quicker. All this time he is benefiting by the standard established and maintained by Smith. To whom is the coupon man indebted for his success? I think to Mr. Smith. So it is all over this land of ours. We have the art-loving photographer, giving his life service to the study of elevating the photographic business, trying to get the price up to the point where he can conscientiously put the time and expense into a picture that will make it a work of art, rather than a mere photograph, ground out as if by machinery; and we have ever present the coupon man, reaping a harvest by reason of the existence of the art-loving photographer. How are we to get rid of the coupon galleries, and such commercial schemes that tend to degrade the photographic business? It cannot be done by legislation, for that has been tried. It cannot be done by any other means permanently, except by education, by discouraging it in all our convention talks, in all our club meetings. Make a

thorough canvass of all the photographers in every city—get them to organize into clubs—and there, in your club meetings, discuss all subjects that tend to elevate and dignify the photographic business as a business. I cannot believe in unionism as most other craftsmen organize themselves into, but I do most heartily believe in fraternal organizations among our craftsmen; and let us there discuss our needs, and let each individual photographer learn that what helps the fraternity at large, helps him individually, and anything that tends to destroy the greatest possibilities of our beloved art, also hurts each individual member of our fraternity. After you become acquainted with your fellow-photographer in the club meetings, you will find that your competitor, and possible enemy, is not a bad fellow after all, and really has many good qualities about him you never dreamed of before, and you will soon become friends, and ready to help each other, instead of doing dirt one to the other. It will not be long until you all agree on the very points we are now discussing. Is there any other class of business men who are so much inclined to avoid each other, as the photographic fraternity? I cannot think of any, and yet my observation has been, that when they do get together, as I have seen them, not many miles from Seattle, there is no class of men who stand together better, or who really agree more thoroughly, and enjoy themselves in company with their fellows more completely, than do the photographers. There seems to be a bond of sympathy that does not exist among any other class of business men. I have had photographers recently say to me, that the time was past when a photographer could sit down in his studio and wait for his customers to come to him, unless he is content to make only a very meager support; if he has any aspirations to accumulate any considerable amount of money, he must adopt the popular method of going after his customers. If this be true, there is but one thing that has made it true—namely, the greed of a certain class of photographers. They have spoiled the public until they (the public) are expecting something for nothing, and the man who does a high grade of work is confined to such a limited few for his customers that he does not accumulate any great amount of filthy lucre. There is a class of people who will not be induced by advertising schemes to take a risk of getting anything satisfactory at one of these commercial picture machines. But the trouble is, the mediocre class of people stand ready to get a bargain in everything that offers, and they are equally ready to bite at a photographic bargain. Now, I am not a pessimist, and do not think for an instant that we are going to the eternal “bow-wows,” or anything of that sort. On the contrary, I am very much of an optimist, and very hopeful; I am inclined to think that, if you give the calf long enough rope it will finally choke itself to death. But it may take quite a while to accomplish this end, and I, personally, would like in my lifetime to see the dear old photographic business elevated to a high pinnacle of grandeur that all lovers of the beautiful in art will be proud to take off their hats to it, and honor the men and women who toil under its banner, striving to get, through the aid of its scientific methods, the best possible results in the portrayal of the human face and form. I thank you.

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A PHOTOGRAPHIC MONTHLY

FAYETTE J. CLUTE, Editor and Proprietor

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"A Merry Christmas and a Happy New Year."

Our Competitions

At this writing we have of course received no prints as entries in our competition for the reason that the November issue is being mailed to-day. The request for postcard expressions of opinions has brought forth a large number of responses and their tenor convinces us that the idea as outlined will meet with the approval of the major portion of our subscribers. We will do no more this month than announce a few future subjects to the end that all may be prepared. As mentioned last month, the first competition will have for a subject a simple landscape without figures, closing January 31, 1908. The second, street scenes with figures, closing February 29th. The third, home portrait of an adult, closing March 31st. The two following competitions, the fourth and fifth, will be for snow scenes and pictures taken by flash light, ending with the last day of April and May respectively.

Space in this department does not allow full discussion. Just send along the pictures for the earlier competitions and matters will adjust themselves. If the expected interest is shown, we will devote a page to the matter and give all information needed each month. What is wanted most is a flood of pictures. Several of the other magazines have had to complain of the poor showing made. Do not let this happen with ours. If all the details do not meet with your individual approval, kindly remember that it would be impossible to please all and sacrifice a few of your own desires as a kindness to us. It will be appreciated to the full.

Expose the Frauds

At the recent Oakland Convention a few of the out-of-town members got to comparing notes, and found that three of their number had been victimized in turn by a traveling outfit that by false representations had induced them to enter into a scheme that did their respective reputations no little damage. The fourth man, immediately upon finding that the scheme was not honestly carried out, wrote every photographer in his part of the country, warning against the scheme, with the result that the promoters had to make a long and expensive jump in order to find a favorable field. This fourth man, in recounting his experience, said that he was tempted to

write "Camera Craft" for additional names and addresses, to the end that he might give the fraud still wider publicity. We asked him why he did not immediately send all details to us for publication. The thought had not occurred to him. We wish to say that we are at all times desirous of giving just such matters publicity. "Camera Craft" seeks to benefit the photographers in every way possible, and it can do so in no better way than by warning them of just such schemes intended for their undoing. Send us full particulars at the earliest possible moment. The magazine reaches every member of the two Associations on this Coast, as well as every other live professional in the country. A little publicity in our pages would make it quite difficult for sharpers to victimize your brother professionals. Let us have the particulars, and they will be published.

Pacific Coast Pictures at the Worcester Exhibition

A letter from Mr. Davis advises us that the Fourth Annual Exhibition of Photographs held by the Worcester Art Museum from November first to December first, this year, is the finest yet held, particular stress being placed upon the fact that the pictures sent from the Pacific Coast make a most excellent showing. About seventy-five exhibitors show three hundred and thirty-nine prints. The Pacific Coast is represented by the following: Laura Adams Armer, Ethel Phoebe Bailey, Annie W. Brigman, George C. Bull, Edward S. Curtis, W. E. Dassonville, Gustav Eisen, Frank Harrold, George F. Holman, Oscar Maurer, Emily Pitchford, William S. Rice, and Hana Robinson. This is certainly a representative list,* and one that we hope will be added to when we again send next year.

Dr Early Visits the Coast

Lewis M. Early, secretary and treasurer of the Artura Photo Paper Company, was in San Francisco the first week of December. He was accompanied by T. E. Minshall, who will conduct the Coast branch, Mr. Lussier having resigned. Dr. Early was desirous of learning personally the wants of the trade in this territory and he also wished to establish a system of rates and prices that would be uniform with those maintaining in the East, considering the high cost of transportation to the Coast. He returned much pleased with the outlook for continued good business in this section.

A Warning

Publishers of photographic magazines should take warning from the experience of our brother editor, late of the "only," and not go wandering away from home demonstrating the goods of a paper manufacturer. One can hardly enjoy having another photographic magazine publisher come along and grab his magazine from the printer without even asking the editor's leave, despite the relief of coming home and finding all the bills paid.

A Photographic Digest

By H. D'ARCY POWER, M. D.

All communications for this Department should be addressed to H. D'Arcy Power, M. D., Burlingame, San Mateo Co., California

Printing from Reversed Negatives on Platinum Paper

Every photographer who makes enlarged negatives for his exhibition work, to be printed from in single transfer carbon, must some time or another have wished to make a platinum print, and have been inconvenienced by the fact that the negative was reversed. Even when it does not matter from the nature of the subject whether it is reversed or not, one may wish to have both prints the same way round. Such was the case with me the other day, when it occurred to me to try printing the platinotype paper from the back. The result was so satisfactory that I thought others might like to know of it also.

The paper used at first was the ordinary AA, but a later attempt with the CC paper proved equally successful. Of course, a piece of paper which has had any of the sensitive coating spilled on the back, as sometimes happens, must not be used. The paper is merely laid with its white side on the film of the negative, and on the coated side is placed the piece of sheet rubber generally used for backing up. This should previously have been cleaned with soap and water and a nail-brush, well rinsed and dried. If this is not done, trouble will very likely be met with, as the rubber surface seems to hold all sorts of impurities.

Another precaution that has to be taken is to see that light does not get in at the back of the frame; as a little light that would not hurt the back of the paper when printing in the ordinary way may cause an ugly mark when it falls on the sensitive surface. A focussing cloth laid down on the printing table, the frame put on it, and then the edges of the cloth brought over, will be found to protect the edges of the paper.

When I first attempted to make a print in this way, I was afraid that the diffusion of the image caused by the paper would be too great. It is certainly a little more in evidence than when an enlarged negative on bromide paper is being printed; I suppose because in one case the paper is between the negative and the sensitive coating, and in the other it is outside the negative. But the diffusion is not only permissible, it is very agreeable with some subjects, and nothing like the diffusion obtained either by interposing a sheet of matt celluloid or a piece of bolting silk.

The image appears through a kind of gauzy veil, although without any great loss of contrast, and if the method is used as I have used it, only with enlarged negatives that would otherwise be printed on rough carbon, there is no loss of detail that will give any trouble. Those who have large work in which a little diffusion, so far from being harmful, is actually preferable for pictorial reasons, should certainly try this plan of printing their negatives on platinum paper.

The operations are otherwise the same as in ordinary platinotype, except that development should be carried on for a longer time to make quite sure that it is going down to the roots of the image, and to secure evenness.—Ena, in "Photography" (England).

Orthochromatism and Color Screens

From the "Wiener Mittheilungen" and the English "Amateur Photographer" we learn of the difficulties that still beset the obtaining of true values, and the means of making correct screens. In the first, Baron Hubl points out that: "The ordinary plate is spoken of as blue-sensitive, because with a short or moderate

exposure, little else than blue counts as forming the latent image. If, however, the exposure is more prolonged, the green, yellow and red produce their effect; but it must not be forgotten that the balance of color rendering is very considerably disturbed by the sometimes overpowering effect of the ultra-violet. If now a color screen is used which cuts out all the rays but the green, yellow and red, and perhaps a trace of the blue, effects are obtained similar to those that are obtained with the so-called panchromatic plates; and reference is made to the work done by Ives some twelve years ago, showing that all orthochromatic effects, and indeed any required color-selection effects, can be realized by the use of ordinary plates, provided that suitable screens are used. Reverting to light filters for orthochromatic effect, Baron Hubl remarks that the usual yellow filters are completely useless, as they allow blue to pass too freely. Gelatine stained sufficiently with chrysoidin cuts out the blue, but allows some of the extreme violet and the ultra-violet to pass, consequently the result obtained with such filters is much the same as if no filter had been used. The case is quite otherwise when a combination is made of the ordinary yellow filter and the gelatine film stained with chrysoidin."

J. H. Crabtree advocates the making of screens from lantern plates that have been cleared of their emulsion by fixing out, using a stock solution of twenty grains dye to six ounces of water. He proceeds as follows:

"Now for the staining. Pour two ounces of the solution, say naphthol-yellow into a quart-plate developing dish and insert plate I for five minutes; take it out, flush it in clean water and set it to dry in a dustless room or in a dust-tight box. Insert plate II for ten minutes in the same solution, rince as before and stand it with plate I to dry. Insert plate III for twenty minutes and treat as before. We have thus three plates with different densities of the same color corresponding approximately to three, five and ten times ordinary exposures. The solution may now be poured back into the stock bottle; it has undergone no change. Plate IV may be treated to aurantia, same quantity as before for two

minutes, and plate V for five minutes. These will provide two useful orange-filters of different depth. With plate VI we may with advantage use methyl-violet; insert the plate for ten minutes, obtaining a color of fair density for contrast-work in photomicrography.

"We may treat six other lantern plates similarly with other colors or varying shades of the same color. When quite dry, lay the colored plates flat on white paper and place a large 'drop' of Canada balsam and xylol, free from air bubbles, in the center of the film. Before it has time to run, lower a cover-glass gently on the drop and press the glass and plate evenly until the balsam reaches the edges. Allow these to dry and bind them with adhesive cloth like a lantern slide. The filter is now complete. To fit it to the camera a long piece of wire is bent so as to lock behind the shutter or lens-flange, and provide a holding-groove in the front of the lens."

Bromide Intensification and Toning

The process described under the above heading last month has the following endorsement from the same source.

"The plan has been tried repeatedly, and each time has given very satisfactory results, but like all intensification processes, it must not be used when the picture is at all fogged. By its means weak grey pictures, due to insufficient exposure or development, can be intensified. It will be found particularly effective with lantern slides and stereoscopic transparencies on glass. Another use is with weak negatives, which one does not wish to intensify, but which are difficult to print; in such a case a light print may be made and then intensified.

"One objection may be raised to this process, an objection on the ground of want of permanence. But up to the present moment there has been no sign of the slightest alteration in any prints so treated, but as none of these have been made more than a few months, it does not do to base any definite conclusion on them. At the same time, the recognized permanence of prints that have had the simple sulphur toning leads one to hope that the same may hold good of prints intensified in the manner just described."

The Amateur and His Troubles

By FAYETTE J. CLUTE

Graduates that are Visible

Despite the popularity of the developing tank, there are still a good many dark rooms and no small amount of developing being done by means of a flat tray being hand-rocked in the dim illumination that proceeds from the ordinary ruby lamp. I was in such a place the other day, but could find little cause for unfavorable comment. The user of the room had reduced the disadvantages to the minimum. What struck me as being the most interesting was the graduates. Each one in use had its base made white by a coat of bath-tub enamel, and there was a ring of the same white paint around the outside of the rim. This made them clearly distinguishable in the dim light that was being used, while some orthochromatic plates were being developed. Anyone who has knocked over a graduate while working in the dim light of the ruby lamp, should give the plan a trial. The graduate shows plainly; in fact, the line of white that represents the rim and the white base are so realistic that one imagines the whole measure is visible. The removal of all fear of knocking it over is enough of a reward to justify the small outlay for paint and few minutes time required to fix the graduates as advised.

Copying at Night

Prints may be copied at night and flowers photographed by the use of two incandescent gas lights placed on either side of the object at a distance of two feet. The lens must be shielded to prevent light shining into it. To ascertain if the lighting is correct, remove the lens and look through the camera, as the focusing screen is not always trustworthy. Silver prints require double the exposure necessary for engravings. In the case of flowers, to prevent flatness of

lighting, one of the gas burners should be turned down. Some white chrysanthemums were exposed for two and a half minutes at f-16, and a negative of full gradation obtained on an orthochromatic plate by using this method. This is mentioned as a rough guide for those who may wish to experiment along these lines.

A Developer for Iris Paper

An enthusiastic user of Iris furnishes us with a developer formula, which, after careful trial, we can recommend. It is as follows:

Water	40 ounces
Metol	14 grains
Sulphite of Soda, dry....	½ ounce
Hydroquinone	90 grains
Carbonate of Soda, dry....	½ ounce

When ready to develop add one drop of saturated solution of bromide of potash to each two ounces of developer. The formula will produce prints having a decided olive color, which is necessary if warm black tones are desired. After prints are fixed, the decided olive is removed by toning, as directed in the working formula.

Umbrella Stand Fixing Bath

One of our subscribers, Charles L. Burgoyne, of Cincinnati, sends the following, which will no doubt interest many of our film-using readers. We wish others would follow Mr. Burgoyne's example, and send in hints such as this. He says: "After trying various plans, original and otherwise, for fixing '½ doz. poses' films, I have invested in a China 'Umbrella Stand' (price \$1.75), about twenty-five inches high, eight or nine inches diameter, and think my troubles in this department are at an end. Fortunately, hypo is cheap, and while it takes a number of pounds to make an 'Umbrella Stand Bath,' it does not break

us up. Make up the bath, to fill the stand, put a small metal clip on the lower end of the strip of film, and on the other a clip with a hook; have a few wires strung across the top and suspend the films, and let them fix until they are fixed, without further attention."

Paste that is Acid

Another correspondent has been making paste according to a formula in one of the annuals, and finds by testing it that it has somewhat of an acid tendency. He wants to know if its being so is detrimental to the prints mounted with it. We would assure him that an acid mountant is quite dangerous, quite damaging and quite detrimental to the prints. The difficulty can be easily overcome by adding a sufficient amount of carbonate of soda to the liquid dextrine solution when making up the paste to neutralize the slight acidity characteristic of some samples of dextrine.

Depth of Focus

A correspondent in Ohio writes to complain that a new anastigmat lens which he has purchased does not possess the same depth of focus as the rapid rectilinear which he has used heretofore for view work. He explains that he prefers the anastigmat on account of its crisp definition and large field; this last allowing him to use his rising front without danger of cutting off the corners, as was so often the case with the lens previously employed. He is advised that he can only secure greater depth with the desired sharpness by using an anastigmat of shorter focus. The apparent depth of focus secured with the rapid rectilinear is due to want of correction resulting in spherical aberration. This last increases depth at the cost of sharpness. Our correspondent must either content himself with the depth of focus given by the anastigmat or else improve matters by using a smaller stop or a shorter focal length, or both.

To Find the Time of a Color Screen

There is really no way of determining the actual increase of exposure demanded by any particular filter under all conditions, simply because these conditions are

such that the effect of the filter varies. A screen that may be a "five times" one during a clear, blue, atmospheric condition such as follows rain, may make an exposure multiplied by ten necessary in a yellow light, such as we sometimes have just before sunset. Again, a filter that adds but little to an exposure on a subject where certain colors predominate may add considerable to the time of exposure required on a different class of subjects. A rough and ready way of testing a filter is to expose a sheet of Solio paper under the unscreened lens until it is discolored to a certain tint, noting the time required. If the filter is then placed over the lens and another piece of paper allowed to become discolored to the same depth, using the same light, the increased amount of time required will give a good working figure as to the added time. The results, however, cannot be depended upon, for the reason that the emulsion of the Solio paper differs from that used by the plate maker, and is proportionally more sensitive to certain rays of light than to others.

Perhaps the most reliable method is one advised by Sanger Shepherd, of color photography fame. He advises the use of a crumpled sheet of white blotting paper, pinned to a black velvet background, as a test subject. This is photographed on the orthochromatic plate being used, and the correct exposure with the unscreened lens determined. Then it is but necessary to find the exposure needed with the filter in place to secure the same quality in the resultant negative. The dead white surface of the paper, and the crumpled condition introducing cast shadows, makes it possible to determine exactly when correct exposure has been given. The absence of all color makes it easy to tell when the second negative is correctly exposed with the filter to give an identical negative to that secured without. Correct exposure in both cases should give negatives showing the slightest difference in gradation from light to shade in the crumpled paper. The increased time demanded with the filter in place, divided by the time of exposure without, will give the "times" of increase in exposure which that particular filter demands.

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Club Notes

Jamestown Camera Club

The banquet and social gathering conducted by the Jamestown Camera Club Tuesday evening, October 1st, was a complete surprise to everyone in attendance. Over fifty persons were present and all agreed that such an elaborate display has seldom been brought before the eyes of Jamestowners at a social. With a committee of only eight and three weeks' preparation it seemed impossible that such arrangements could have been completed.

The rooms had been all decorated in an elaborate manner. Guests on arriving were ushered into the large meeting room, hung with Japanese lanterns, which, with large plants and masses of asters, gladiolas and lilies, gave the room a beautiful appearance. At 8:15 p. m. the guests moved into the next room for supper. A large chandelier clustered with Japanese lanterns decorated the center of the room while a large table laden with good things ran through the middle, six small tables seating five guests each being placed on each side, each table laden with flowers. During the repast various musical selections were played, and afterwards an entertainment was given, consisting of excellent piano solos by Mrs. Andrews and H. Churchill, sleight of hand exhibition by J. M. Cushman, and two bass solos with one extra number by John Andrews.

The members of the committee for the evening were A. H. Hooper, O. D. Starr, H. D. Churchill, L. Eckstrom, C. Southwick, O. Hultgren and J. Andrews. The interest aroused by this entertainment bids fair to make the Jamestown Camera Club one of the most popular organizations of its kind in the country.

Artistic Photography

At the Albright Art Gallery, where the Loan Exhibition of paintings is being held, the gallery containing the collection

of artistic photographs by the Photo-Pictorialists of Buffalo, has been exceedingly popular with visitors during this last week of September. At times it has been crowded. Six of the photographs thus far have been sold, and it is probable that many more will find buyers during the next two or three days.

Under the direction of Charles M. Kurtz and due entirely to his seemingly inexhaustible supply of energy the Albright Gallery has become famous as a show place for the highest in the world's art. To the general public Mr. Kurtz is probably best known as a connoisseur of art as it is expressed by the painter, but to those who have had the pleasure of a more intimate acquaintance, his familiarity with the many branches of that great subject becomes apparent. He is equally interested in the work of the man who forms a design from a shapeless piece of iron as he is in him who creates sunlight on canvas or hews from a block of marble the image of life.

His sympathy and appreciation extend even to the youngest of the arts—namely, photography—and it is to such men that the photographer must turn for encouragement and assistance, for all are dependent. But no cause is hopeless when its devotees are workers, and in concert with other bands of men toiling in this direction the Photo-Pictorialists of Buffalo humbly ask permission to contribute the result of their labor to the great end that the art in photography may be recognized and acknowledged as a means of individual expression.

The appreciation shown the photographic exhibit has been so general that Mr. Kurtz is seriously considering the idea of organizing an international exhibit of artistic photography, to be held at the Albright Art Gallery in the early part of 1909. At the Saint Louis World's Fair of 1904, Mr. Kurtz was chairman of the international jury of awards for photography, and thus was brought into close

relationship with the photographic representatives of the various countries of the world. Through them Mr. Kurtz believes he could secure exhibits representing the best work that has been done in Great Britain, Germany, France, Italy and Austria. The plan probably would be to select representatives in the various countries and allow each to forward a given number of prints to illustrate the best of the photographic art in his country. Then certain men and women of established reputation as photographers in this country could be invited to contribute works, while American photographers in general would be invited to submit prints for the consideration of a jury of selection to consist of painters and photographers co-operating with the director of the Albright Art Gallery. It is believed that such an exhibition not only would be highly interesting and educational to the citizens of Buffalo, but that it would bring here many enthusiastic amateur and professional photographers from various parts of the country.

Death of Romeo S. Barstow

Romeo S. Barstow died at Burlington, Vermont, October 18th, 1907. He was born at Colchester, Vermont, January 29, 1864. At an early age he entered the employ of Ripley & Holton, hardware dealers, and remained with that firm and its successor—the Holton Hardware Company—until his death, having for many years held the position of secretary and treasurer of the latter company. During his busy life he held many other positions of honor and trust, all of which he filled with that signal ability and unswerving fidelity which was characteristic of the man. He was a trustee of the Methodist Episcopal Church, a valued member of the Men's Social Union of the church, and secretary of the Board of Cemetery Commissioners of Burlington.

Mr. Barstow is survived by his wife and five children, by two sisters and a father and mother.

On July 19, 1901, he was elected to membership in the Postal Photographic Club. It was not my privilege to meet him personally, but through a constant correspondence, which was maintained to within a few days preceding his death, I was deeply impressed by his many ami-

able qualities and his scrupulous devotion to his duties as a member of this club. As a touching instance of this devotion to duty, it may be mentioned that in the delirium of his last hours he spoke of the club and of a print that he was intending to send for a forthcoming album. As an artist photographer he possessed high skill and maintained a foremost position among competitors of national reputation. I have implicit faith that as described by our friends and fellow members who were favored by a personal acquaintance with him, he was gentle and patient in the midst of troubles, faithful and steadfast in everything that he undertook, a sympathetic and true friend, and a man without an enemy. Truly a most glorious heritage to his family and an example most worthy of emulation.

It is my painful duty to in this matter make announcement of the death of our Brother Barstow to the members of the Postal Photographic Club, and to extend to his family, his relatives and friends the heartfelt sympathy of the members of this organization.

Very respectfully,
Secretary, P. P. C. G. A. BRANDT,
October 29th, 1907.

The 1908 British Journal Almanac

George Murphy, Incorporated, announce the receipt of the new volume and we would urge an early order. The price is 50 cents for the paper cover edition, postage 27 cents extra. Cloth covers, \$1.00, postage 37 cents extra. This is the standard British annual, and, quoting from the prospectus: "The leading editorial article will deal very completely with the new color processes. Lumiere Autochrome, Warner-Powrie, and other new processes will be treated by a systematic review of the work of the year under the title of 'Epitome of Progress,' and will be a strong feature of the volume. The frontispiece is a carbon print by the Autotype Company and dry mounted by the Adhesive Dry Mounting Company, Limited. Among other attractive inserts will be found a specimen of three-color printing by the Sanger-Shepherd Color Printing Company and examples of the three-color work of Hood & Company, Limited."

Notes and Comment

"Photograms of the year 1907"

This popular annual is again to hand, better and brighter than ever, despite the excellence of former issues. It is a volume which no pictorial worker can afford to miss, giving as it does a pictorial record of the best photographic effort of the year with descriptions and criticisms. There are about two hundred pictures reproduced, examples of the work of photographers in Germany, France, England, America, Australia, Spain and the like, being reproduced. Several of our Pacific Coast workers are represented and there is an essay on their aims and methods by the editor of this magazine. Paper covers, one dollar; cloth binding, one dollar and fifty cents. Tennant & Ward, American agents, 287 Fourth Avenue, New York.

"Focal Plane Shutter Photography"

With the universal use of Graflex and other cameras equipped with Focal Plane Shutters, there has come the need of a reliable, comprehensive and easily understood book on the subject of high speed photography.

"Focal Plane Shutter Photography," a very attractive book issued by the Folmer & Schwing division of the Eastman Kodak Company, furnishes a fund of information that is not only essential to the user of a focal plane shutter, but equally valuable to the every day photographer who may wish to have clear ideas about depth of focus, depth of field, angle of view, and many other seemingly abstruse subjects which are clearly and concisely explained.

The illustrations in themselves constitute a comprehensive lesson in photography, as under each picture (and the book contains many), is sufficient information to enable the photographer to proceed with confidence to make negatives of similar subjects. A number of new, and heretofore unpublished tables

occupy the last five pages of this valuable book, a copy of which, we are informed, will be mailed to those interested in focal plane shutter photography, free upon request, by the Folmer & Schwing Division, Eastman Kodak Co., Rochester, N. Y.

A Convenient Flash Lamp

The Caywood pocket flash lamp and the Caywood cartridge system, a descriptive circular of which has just reached us, has every indication of being a decided improvement in flash light appliance. The handle contains a small dry battery of a standard size, and the flash is the result of burning ready loaded cartridges that can be obtained in five sizes. There is, therefore, no dirty flash pan to be carried; no loose powder to spill; no fuse, match, or cap to bother with. It can be carried in the pocket, and makes flash light work as easy as ordinary snap-shot work in sunlight. We would advise all our readers to write E. S. Caywood, 5621 Wabash Avenue, Chicago, Ill., for one of his circulars.

Mr. Ponting and His Work in Japan

Herbert G. Ponting, F. R. G. S., the well known Californian, has been adding new laurels to his fame as a photographer. A recent mail brought us a folder descriptive of his "Fuji San" album of views of Fujiyama, and containing press comments from some eight or ten of the leading publications in Japan. We can hardly do better than quote one of the shortest, that from the "Japan Daily Mail." It says:

"Two years ago, if we remember rightly, we had occasion to speak in warmly eulogistic terms of Mr. Ponting's views of Fujiyama collotyped by Mr. Ogawa, and to express the hope that these two able artists would again co-operate to produce another album. They have done

so, we are glad to say, and the result is a series of Japanese studies which rank with the Fuji collection as the most beautiful reproductions of Japanese scenery and life we have ever had the great pleasure of viewing. It seems altogether a misnomer to apply the term 'photograph' to these exquisite reflections of Nature's graces. They are quite free from the objectionable characteristics which belong to the ordinary photograph: offensive fidelity, mechanical accuracy and exclusion of all appeal to the imagination. Indeed, they seem to us to rank even higher than pictures, for the subjective element is supplied by a subtle choice of aspect, and there is a mystery of aerial perspective such as a painter's brush could not produce, or, at any rate, has not yet produced. What strikes us notably in the landscapes is the cloud effects—the last thing one would be disposed to look for in a photograph. But in truth it is difficult to indicate any feature deserving exclusive praise. One may easily select among the series certain gems of incomparable beauty, as 'The First View of Fuji,' 'The Evening at Matsushima,' 'The Golden Days of Autumn,' 'Moonlight at Kyomizu,' and 'The Daiya River at Nikko.' These one could never tire of gazing at. Yet it is necessary to recognize that their companions may have even greater beauties for other eyes. Our only insistent wish is that many of these lovely studies could be given to us on a much larger scale. For the album is small. Doubtless the idea is to bring it within reach of every purse, but it leaves an abiding desire to have more of it. Mr. Ponting has added to each picture an appropriate couplet from the best Anglo-Saxon anthology; and we confess that the pleasure of the pictures is enhanced by this association of ideas."

Still Growing

The Bausch & Lomb Optical Company are at work making extensive additions to their already enormous plant. Two years ago a three-story building, forty by four hundred and forty feet, was erected for administration purposes. Manufacturing needs made it necessary

to encroach upon this to such an extent, and still the space proved inadequate, that finally these new buildings had to be undertaken. Two new stories are being added to the administration building, and north of this site the work is being rapidly pushed on a five-story grinding plant, one hundred and nineteen by two hundred and thirty-eight feet. These, when completed, will almost double the present floor space, giving them about ten acres.

The New Ansco Factory

The Goodwin Film and Camera Company, of Binghamton, N. Y., has lost no time in reconstructing its film plant, which was totally destroyed by fire last September. It is announced that the new concrete building, which is almost finished, will be one of the most carefully planned film factories in the world. The new plant will be ready to market Ansco films again on or about January 1st proximo, and we know that the many sellers and users of Ansco films will welcome this news and will join us in expressing admiration for the spirit of enterprise which has made possible in so short a time the building and equipping of a large plant, one requiring special machinery.

A Novel Diffusing Arrangement

Photographers who aim at artistic portraiture will be interested in the new Cooke portrait lens, Series IV, working at F/5.6, fitted with an ingenious diffusing device and diaphragm arrangement. The illustration herewith will give some idea as to the appearance of the lens when fitted to the camera. Two cords, one at each side of the camera near the back, are so arranged that by pulling one of them the photographer can secure any desired amount of diffusion. The other cord operates the iris diaphragm, making it unnecessary for the operator to pass to the front of the camera. The advantage of this will be apparent to all professionals. The lens fitted with pulleys and cords sells: 13-inch, \$135; 16-inch, \$190, and 18-inch, \$220.



